

Mitsubishi UFJ Morgan Stanley

Comments on Session 1

“Key Economic Challenges”

February 2017

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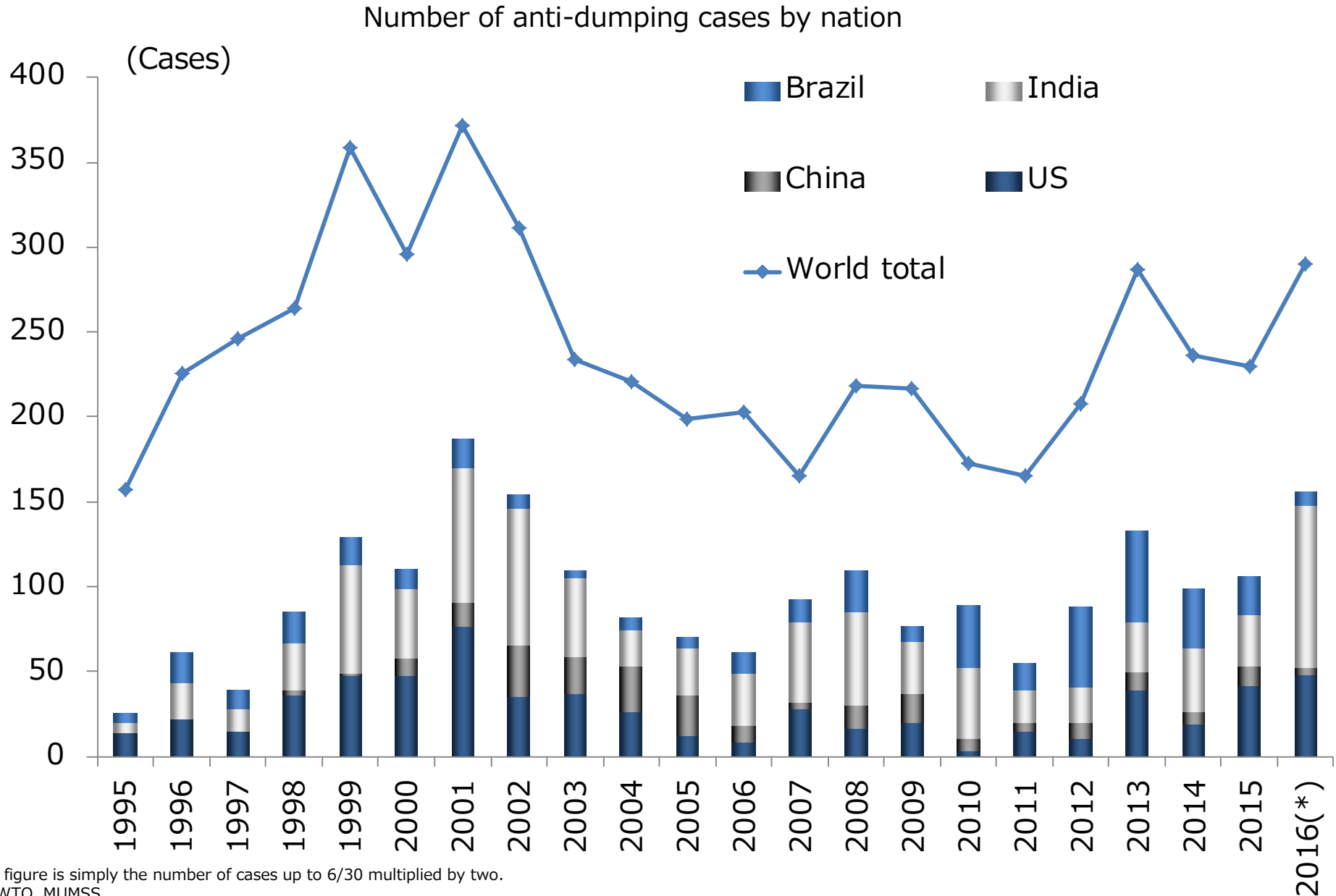
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Please refer to important disclosures and certifications located in Appendix A of this report.

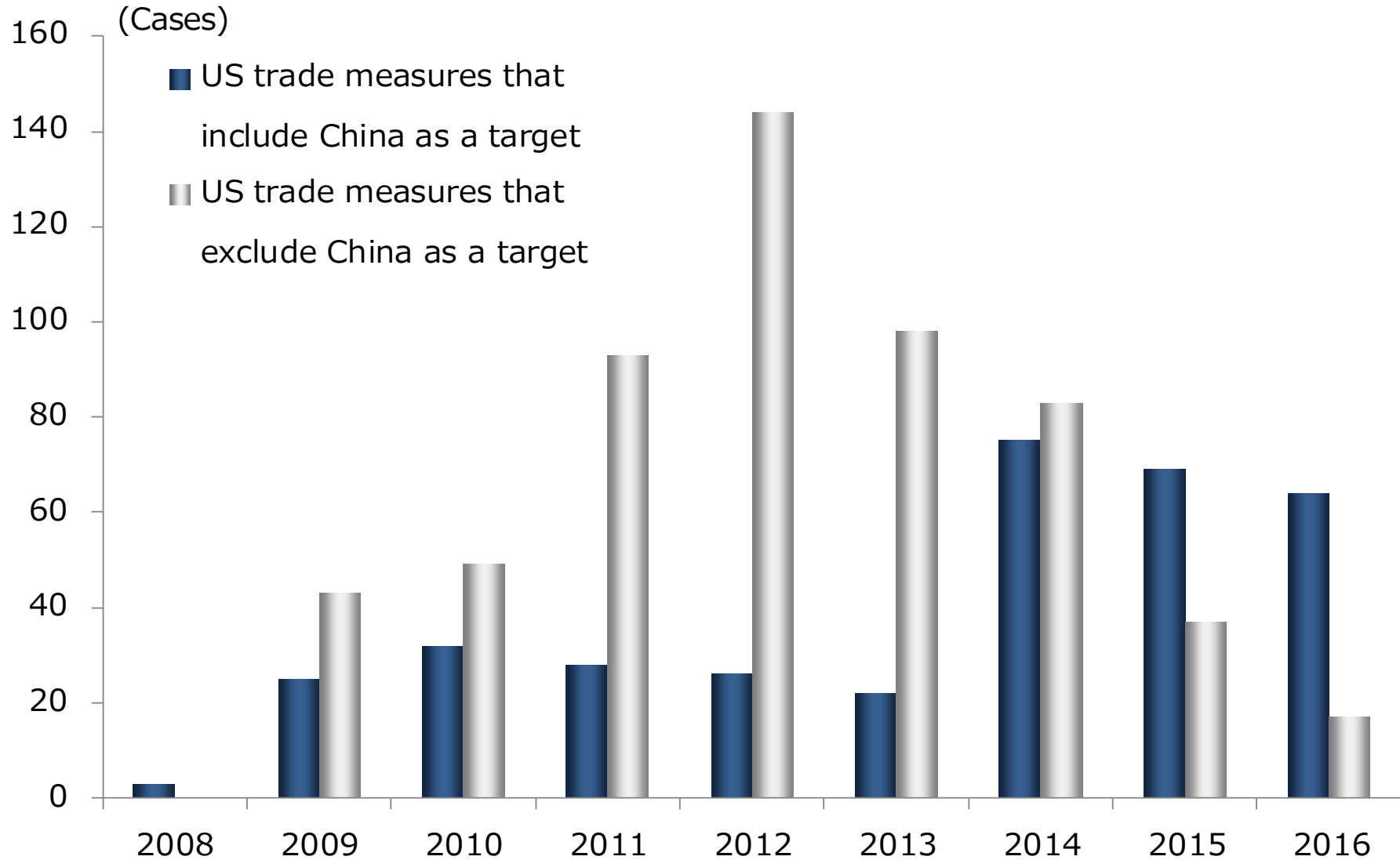
1. Make America Protect Again
 - Return of “Twin Deficit”
2. Is “Japanization” generalization?
 - Korean case
3. How about China?
 - To believe or not to believe... that is the Q

1. Shift to protectionism is already there...



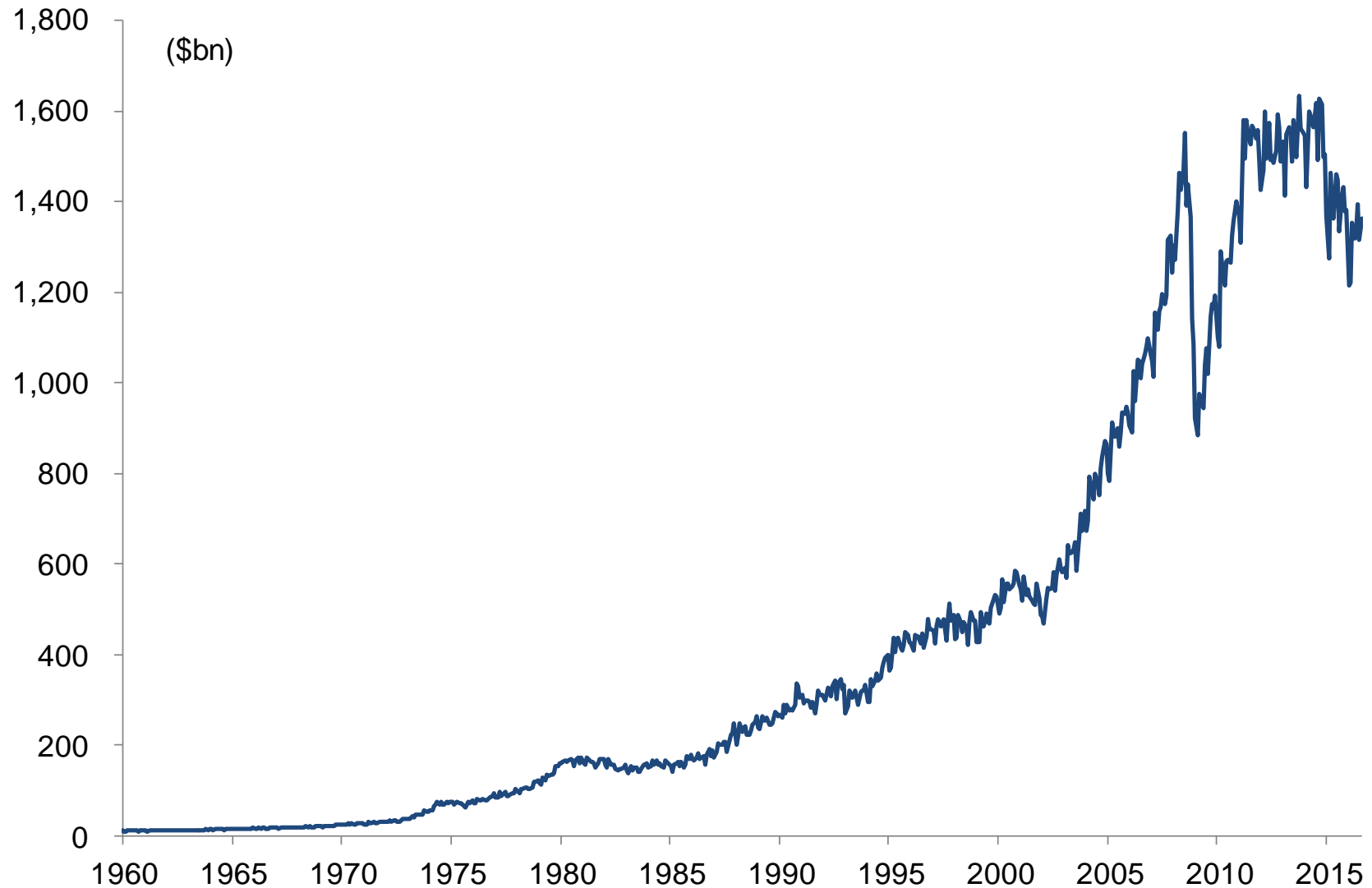
(*) 2016 figure is simply the number of cases up to 6/30 multiplied by two.
Source: WTO, MUMSS

Number of protectionist measures implemented by the US
(tariffs, import controls, non-tariff barriers, public procurement localization, etc.)



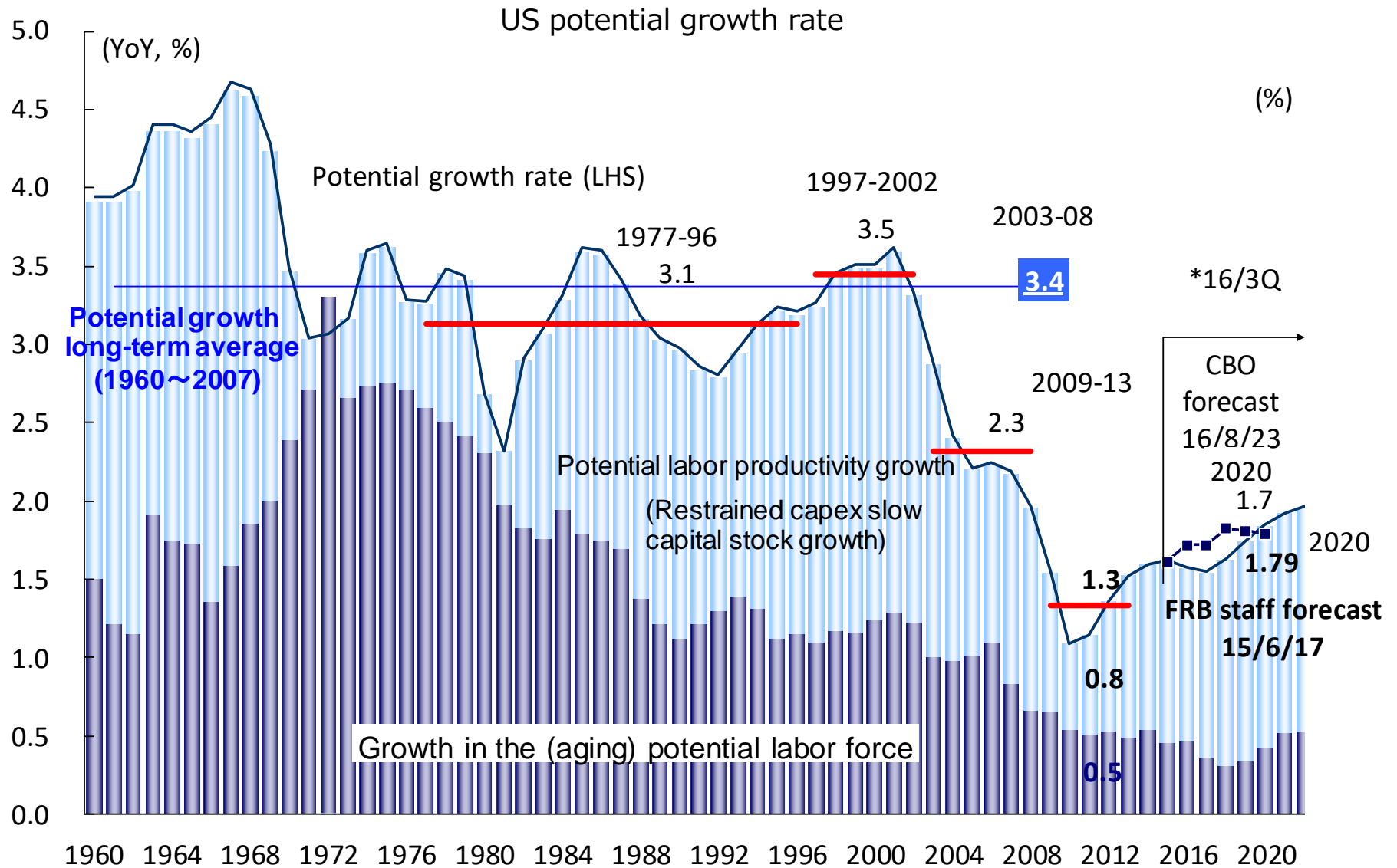
Source : MUMSS from Global Trade Alert data

Trade value: Global total

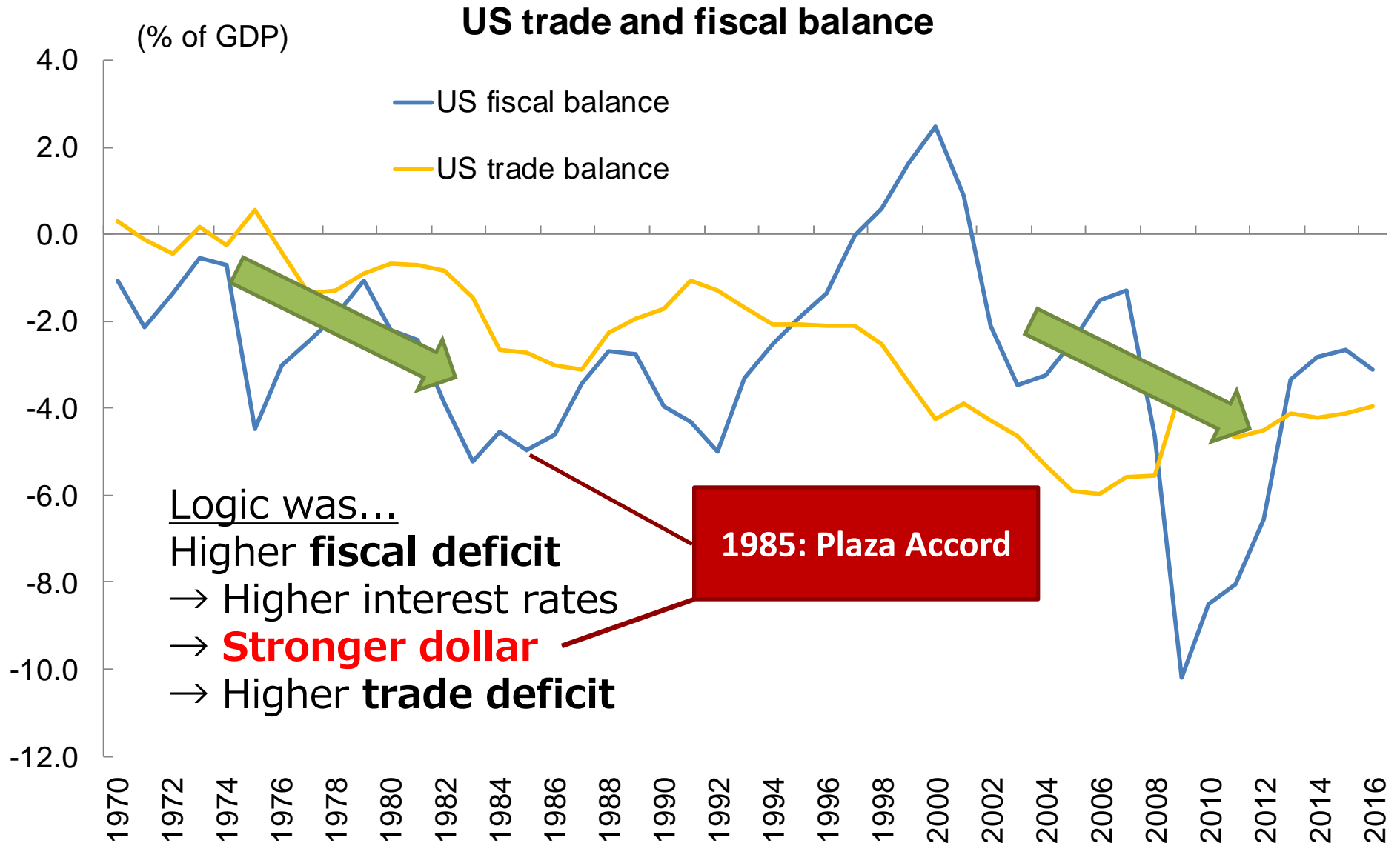


Source: MUMSS, from IMF data

What is happening in the US? Lower potential growth...



Source: MUMSS from FRB(FREDS, 2001-56, updated by FRBSF)、CBO(2016/8)、FRB



Source: MUMSS from US Census Bureau and U.S. Treasury

...no matter what

Economic Report of the President



Transmitted to the Congress
February 1984

trade deficit has been temporarily exacerbated by the international debt problems and by the more advanced stage of recovery in the United States than in the world at large.

Despite these problems, I remain committed to the principle of free trade as the best way to bring the benefits of competition to American consumers and businesses. It would be totally inappropriate to respond by erecting trade barriers or by using taxpayers' dollars to subsidize exports. Instead, we must work with the other nations of the world to reduce the export subsidies and import barriers that currently hurt U.S. farmers, businesses, and workers.

I am also firmly opposed to any attempt to depress the dollar's exchange value by intervention in international currency markets. Pure exchange market intervention cannot offset the fundamental factors

February 2, 1984

MEASURES TO REDUCE THE TRADE DEFICIT

Four kinds of policy measures have at times been proposed to improve the trade balance: protectionism to keep out imports, foreign exchange intervention to reduce the value of the dollar, capital controls with the same aim, and a change in macroeconomic policy. Each of these has costs. Of the four, protectionism is the most dangerous.

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., January 31, 1984.

Martin Feldstein
CHAIRMAN

Source: MUMSS, Economic Report of the President, 1984

Fiscal deficit:

...hard to tackle

Strong dollar:

Oral intervention?
Less interest rate hike?

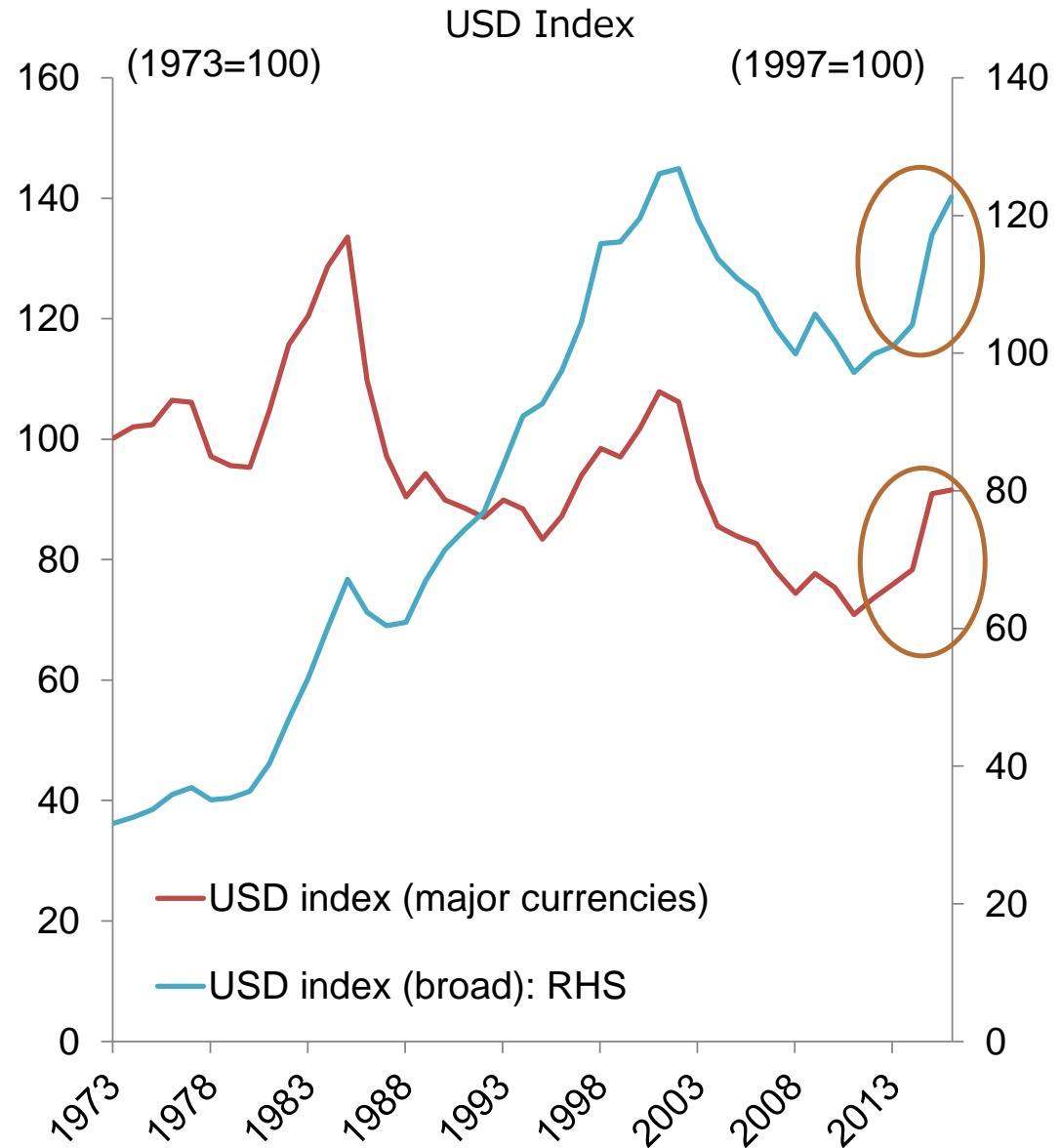
Trade deficit:

Export: Weaker USD
/ Export quota
Import: Import quota

The question is...

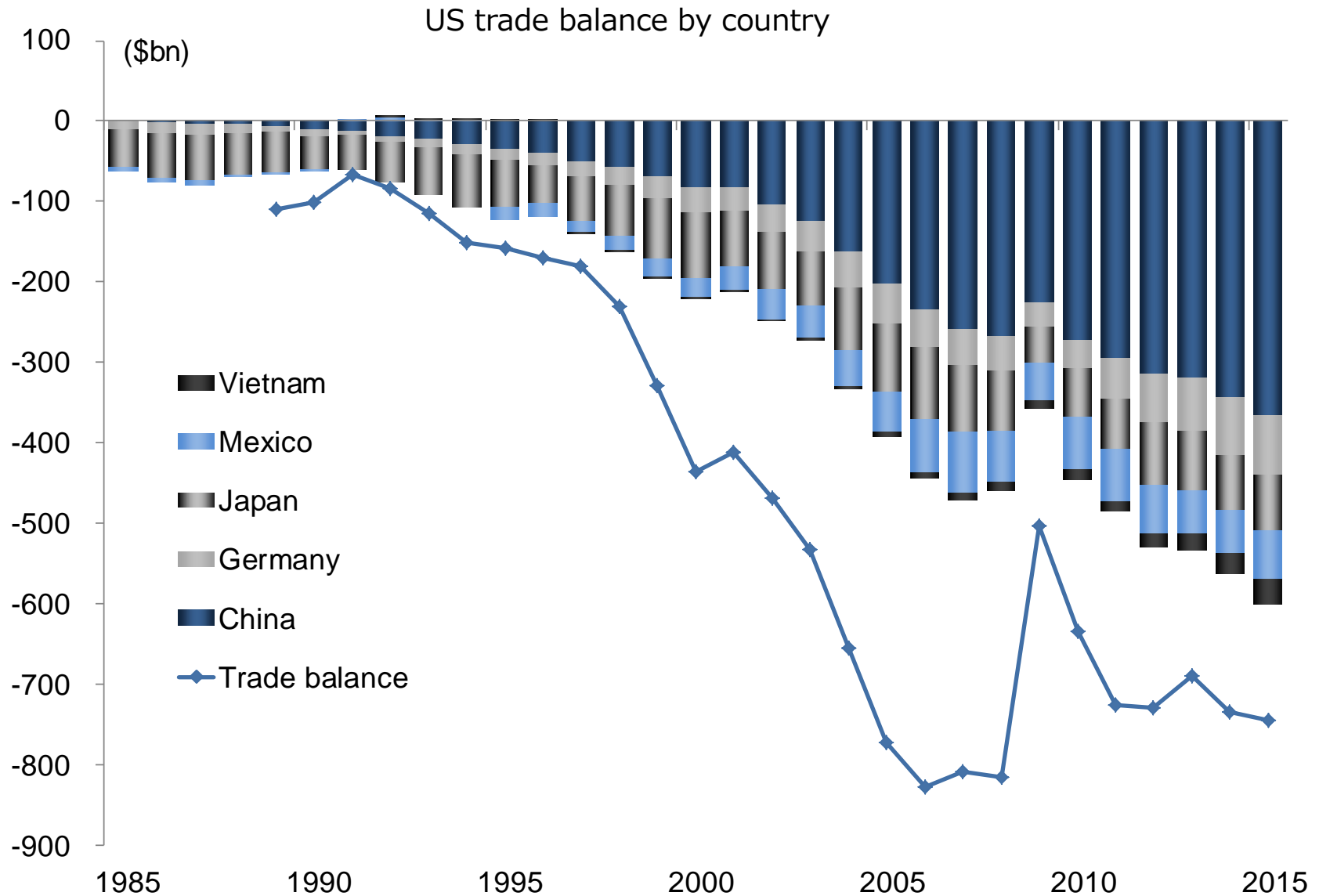
Who is the target?

What are the consequences?



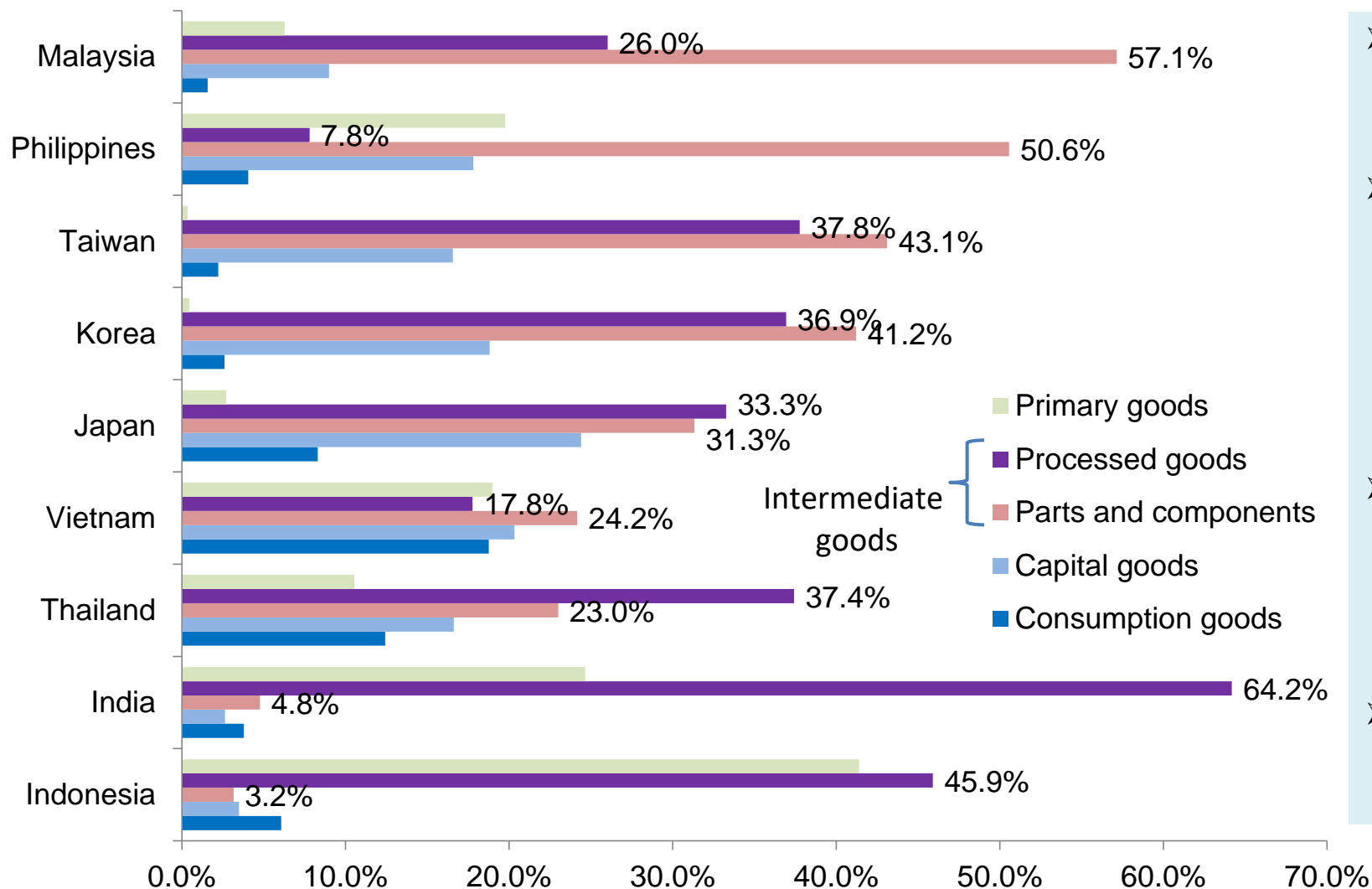
Source: MUMSS, from Federal Reserve data

China an obvious target... but will others remain intact?



Source: MUMSS, from BEA data

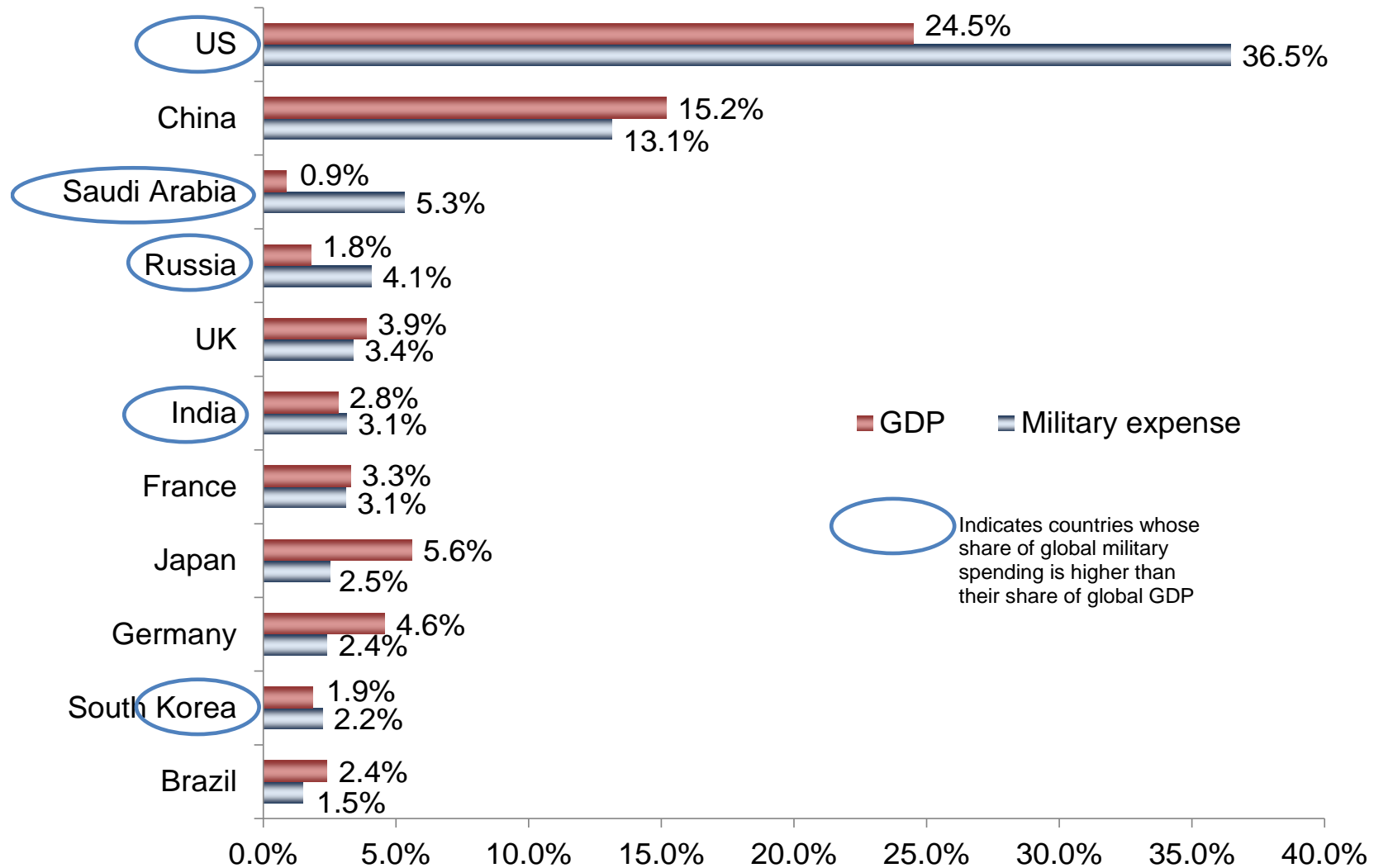
Exports to China by product stage (2014)



- 18% of China's exports are to the US, and 71.2% of those are final goods.
- If China cannot export to the US, exports of countries providing intermediate goods (components and parts) to China will fall sharply.
- This puts Malaysia and Taiwan, where over 80% of exports are intermediate goods, in perilous positions.
- 64.6% of Japan's exports to China are intermediate goods.

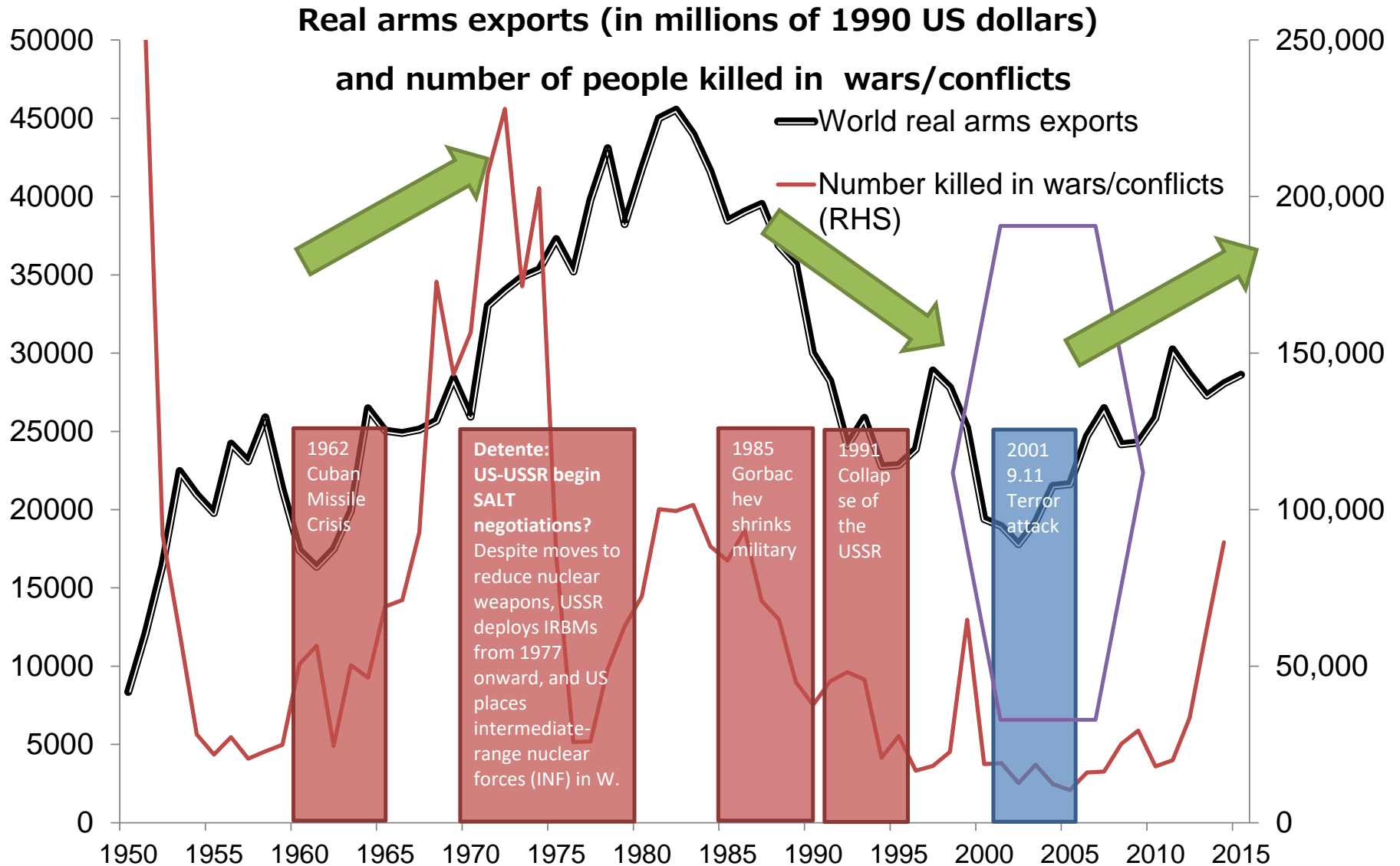
Source: MUMS from RIETI

GDP share and military expense share



Source: MUMSS, from SIPRI Military Expenditure Database, IMF

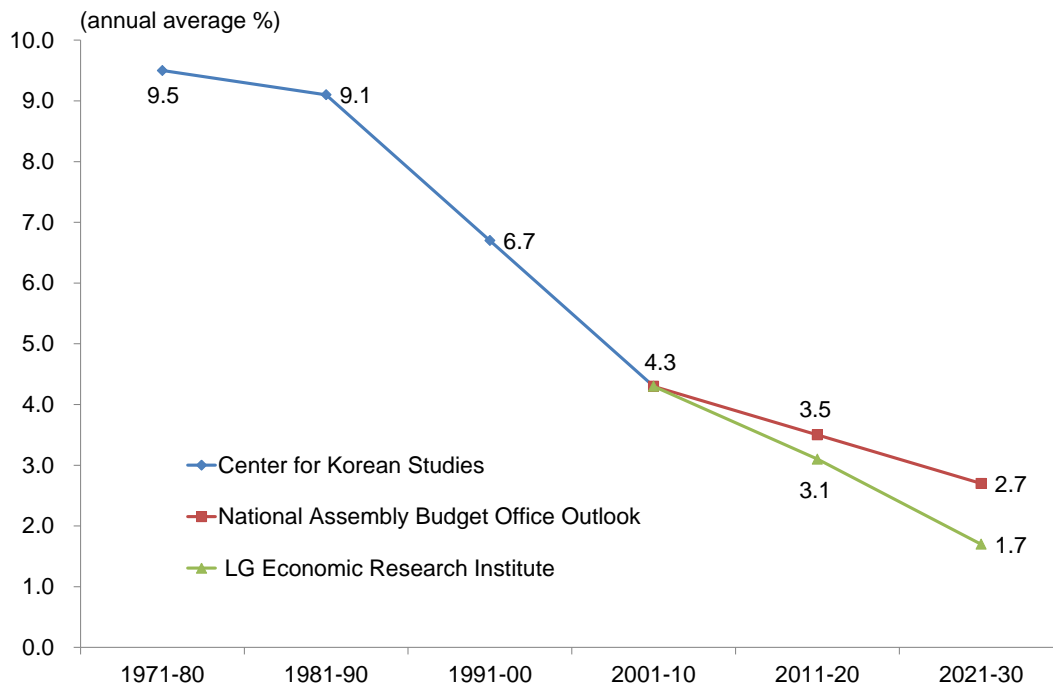
...and there is a sign of “freer” trade in one specific category



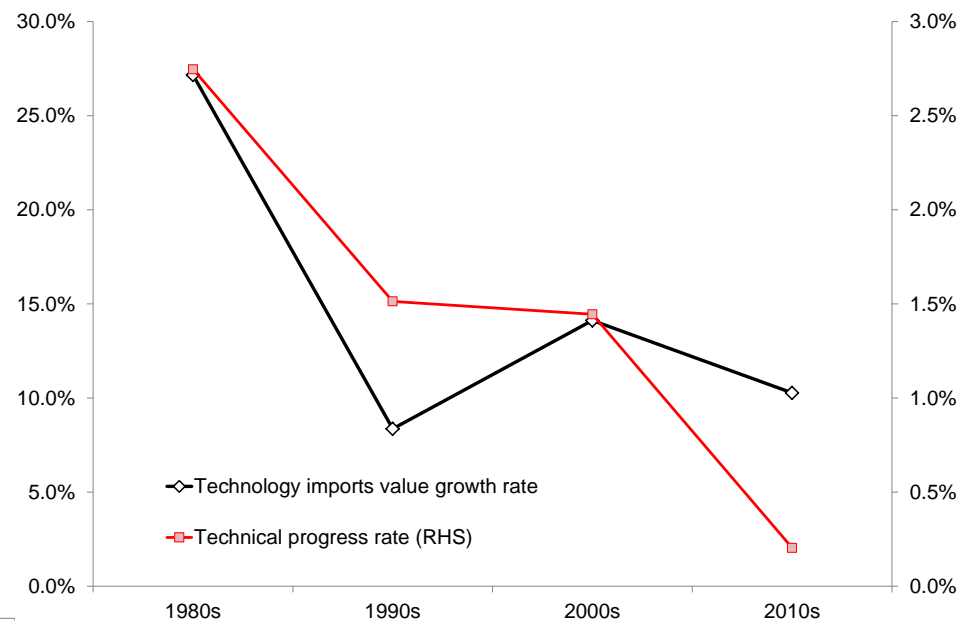
Source: MUMSS, from Stockholm International Peace Research Institute and SIPRI

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Decline in potential growth rate

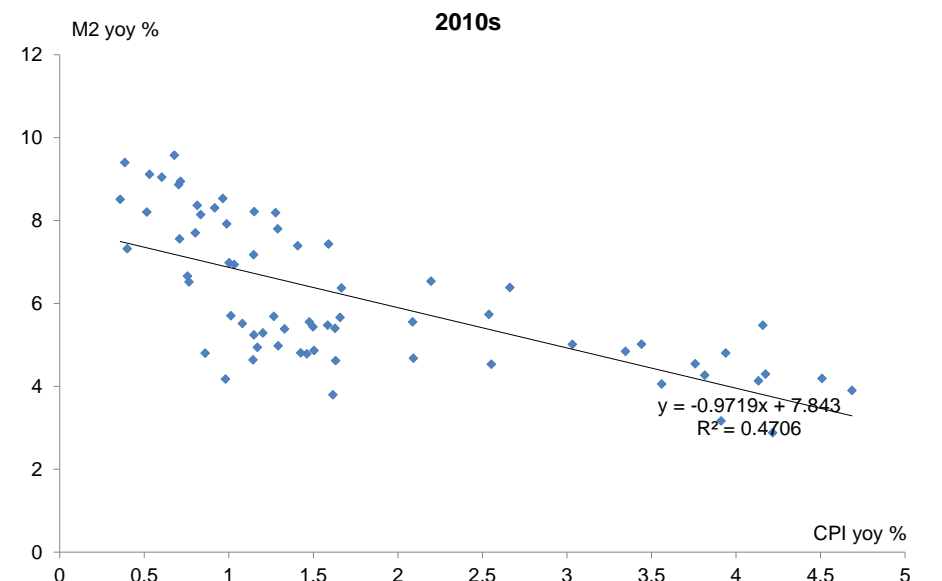
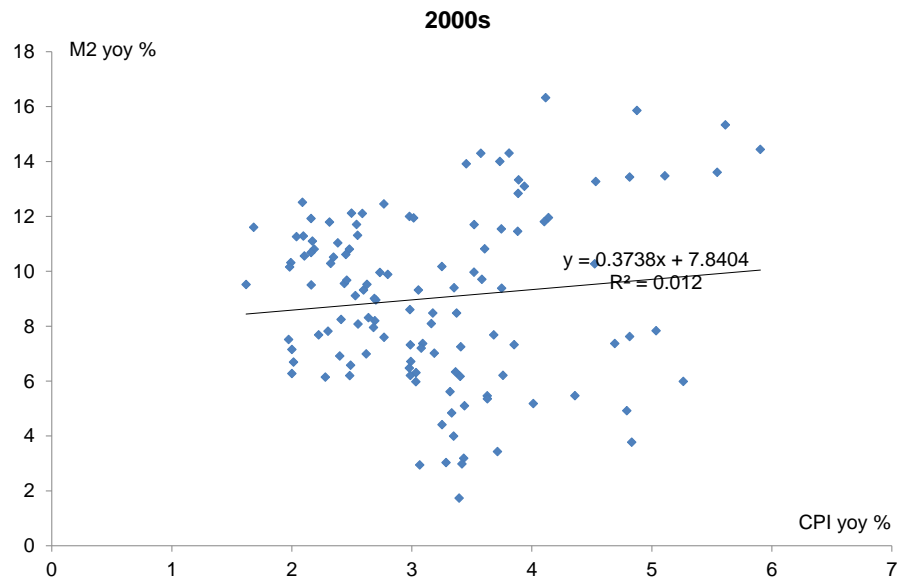
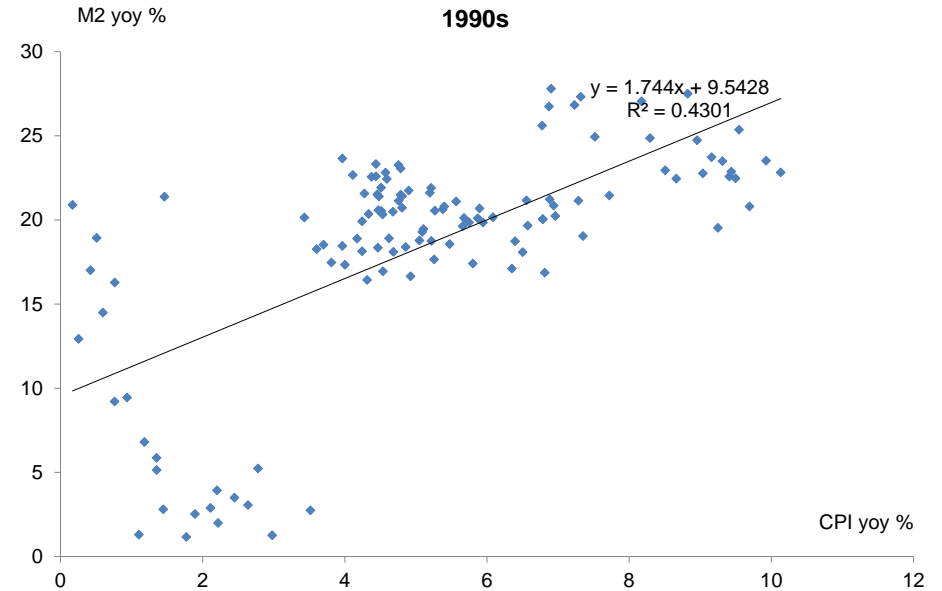
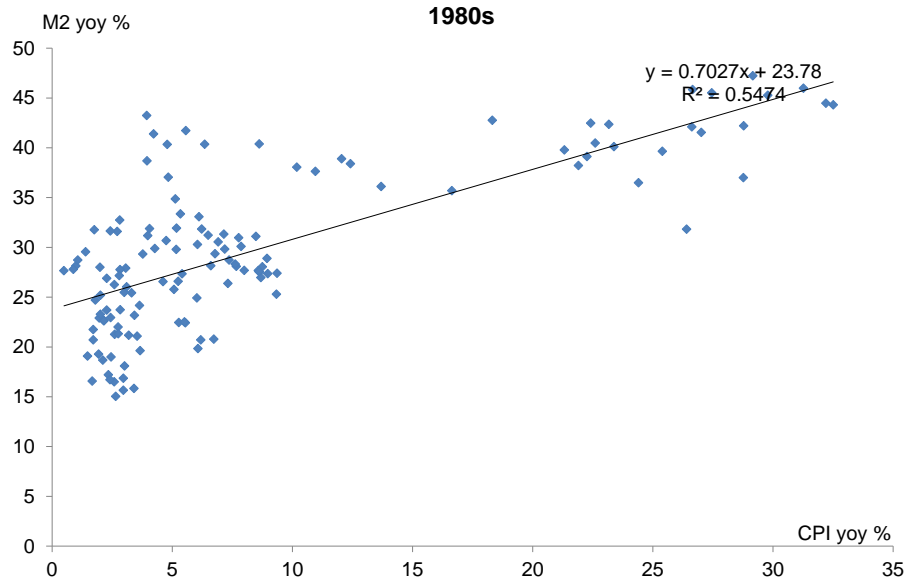


Source: MUMSS, from Center for Korean Studies, National Assembly Budget Office Outlook, LG Economic Research Institute



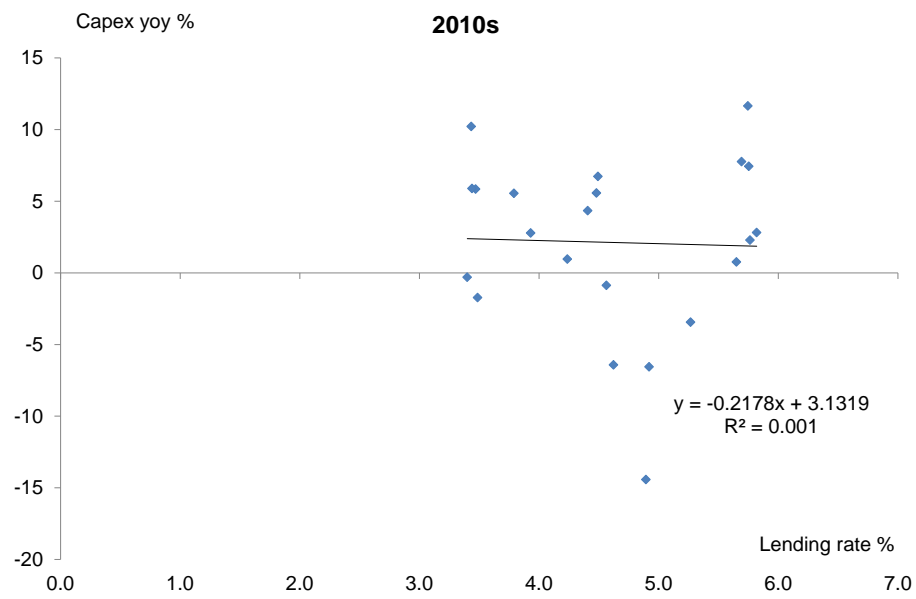
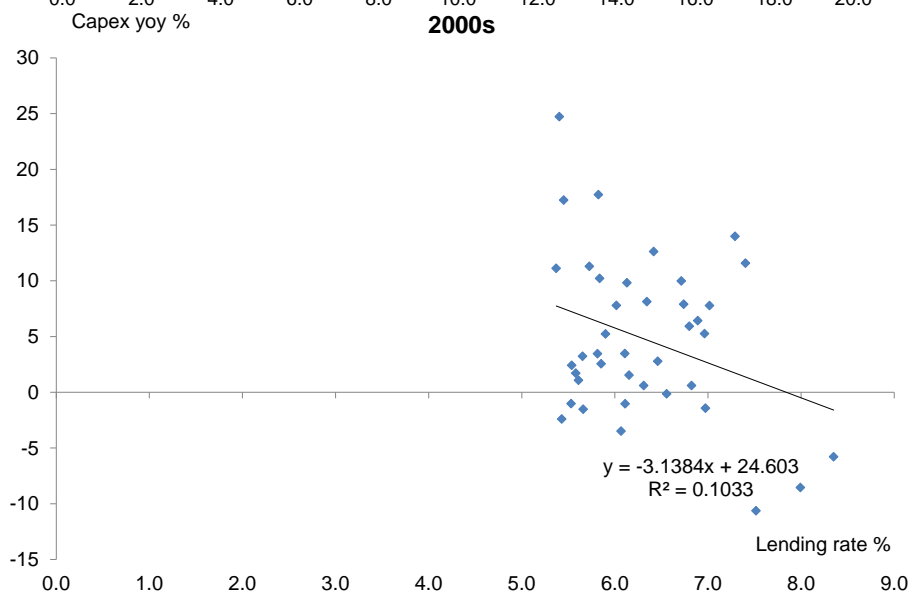
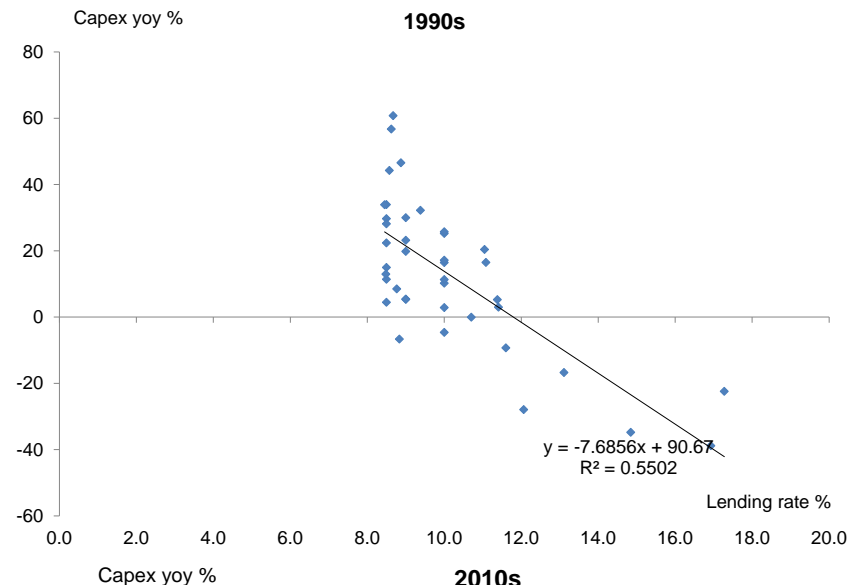
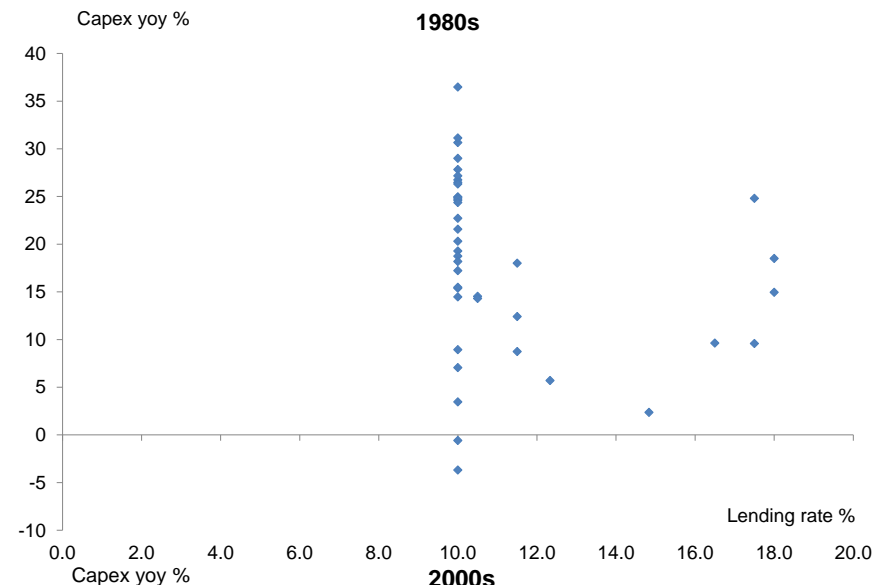
Source: Ministry of Science of Korea, ICT and Future Planning, Educational science engineering department of Korea

Where is inflation? M2 vs CPI

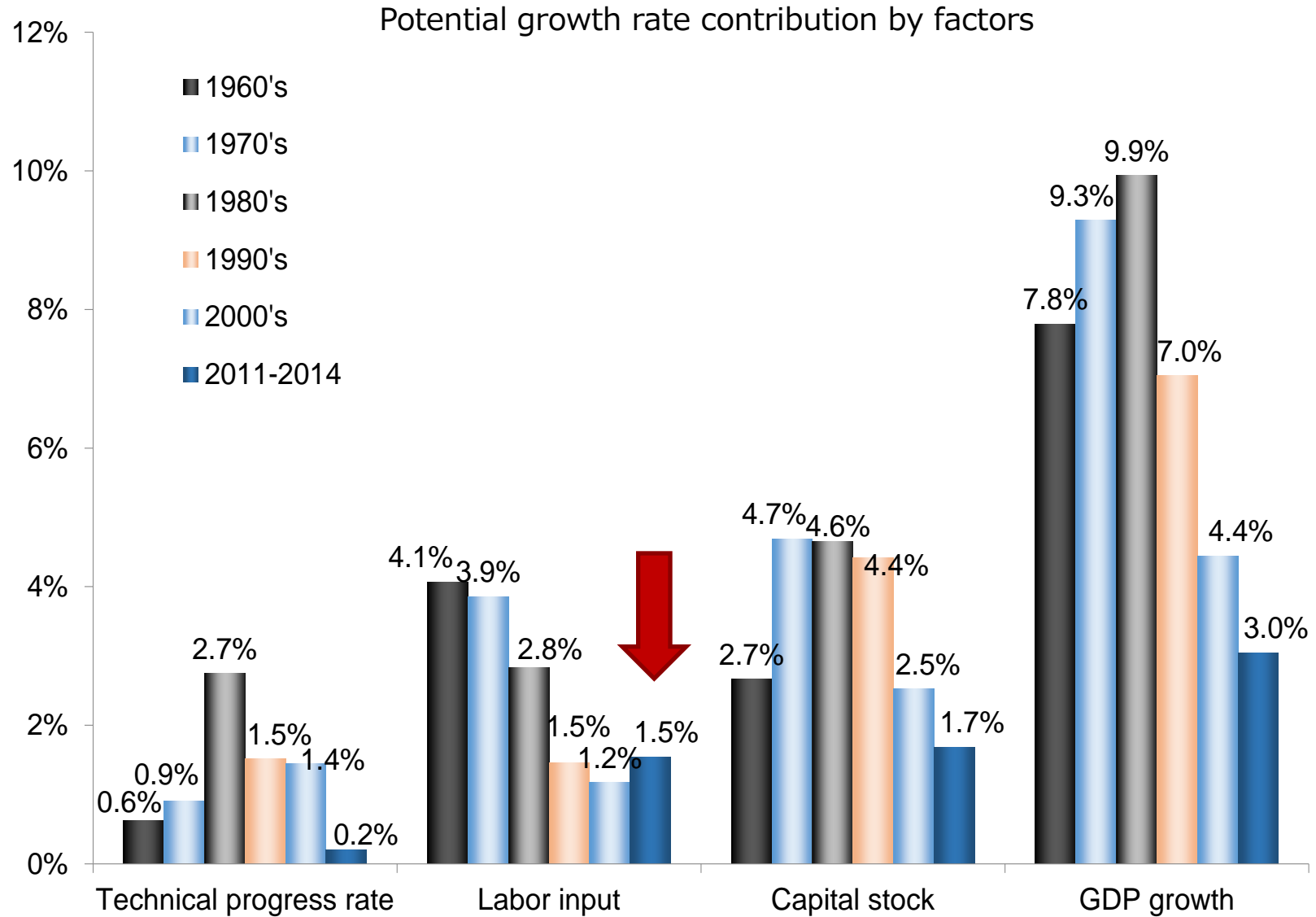


Source: MUMSS, from Bank of Korea data

Where are Animal Spirits? Lending rate vs Capex



Source: MUMSS, from Bank of Korea data

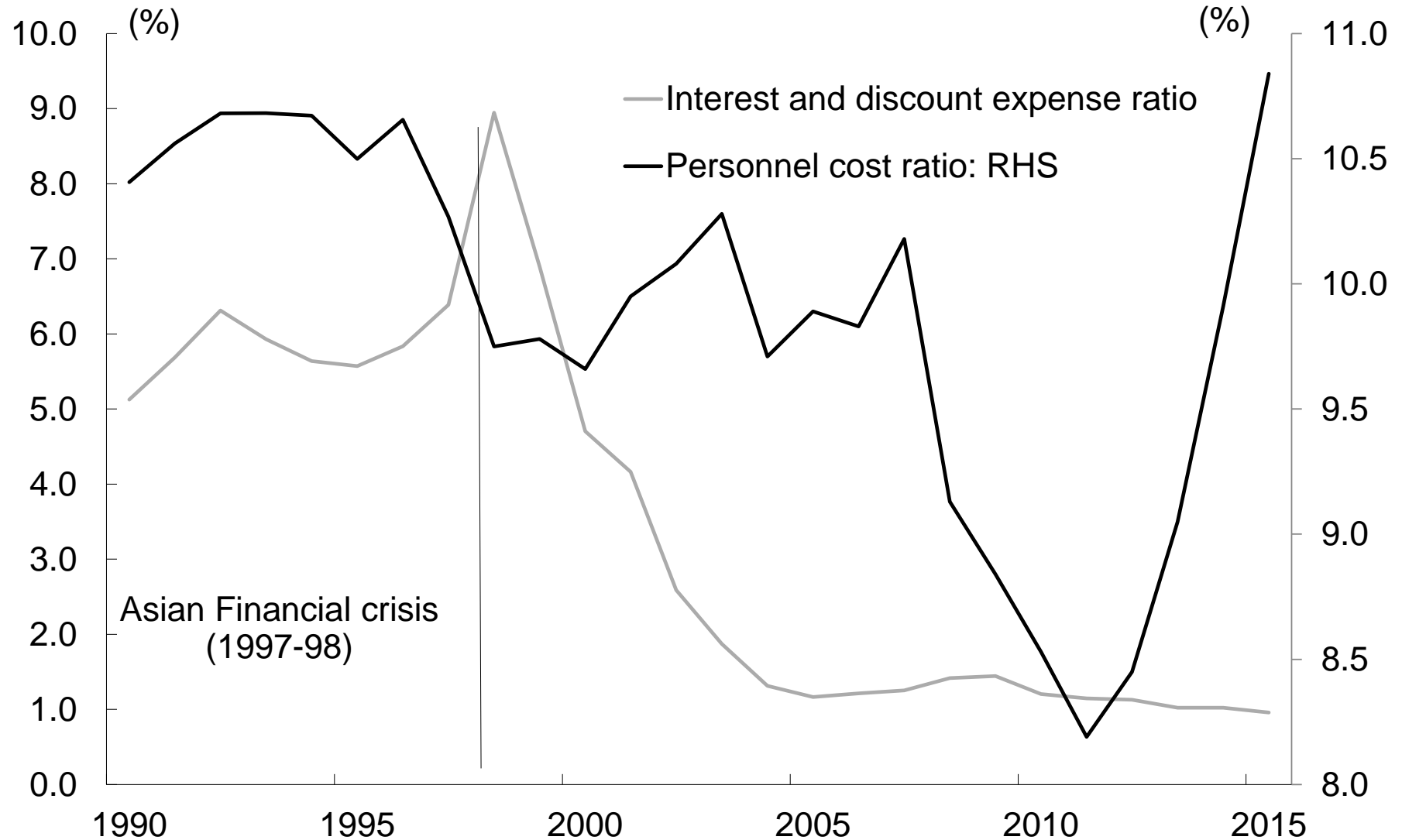


Source: Penn World Table, Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2015), "The Next Generation of the Penn World Table" American Economic Review, 105(10), 3150-3182



Source: MUMSS, from BOK data

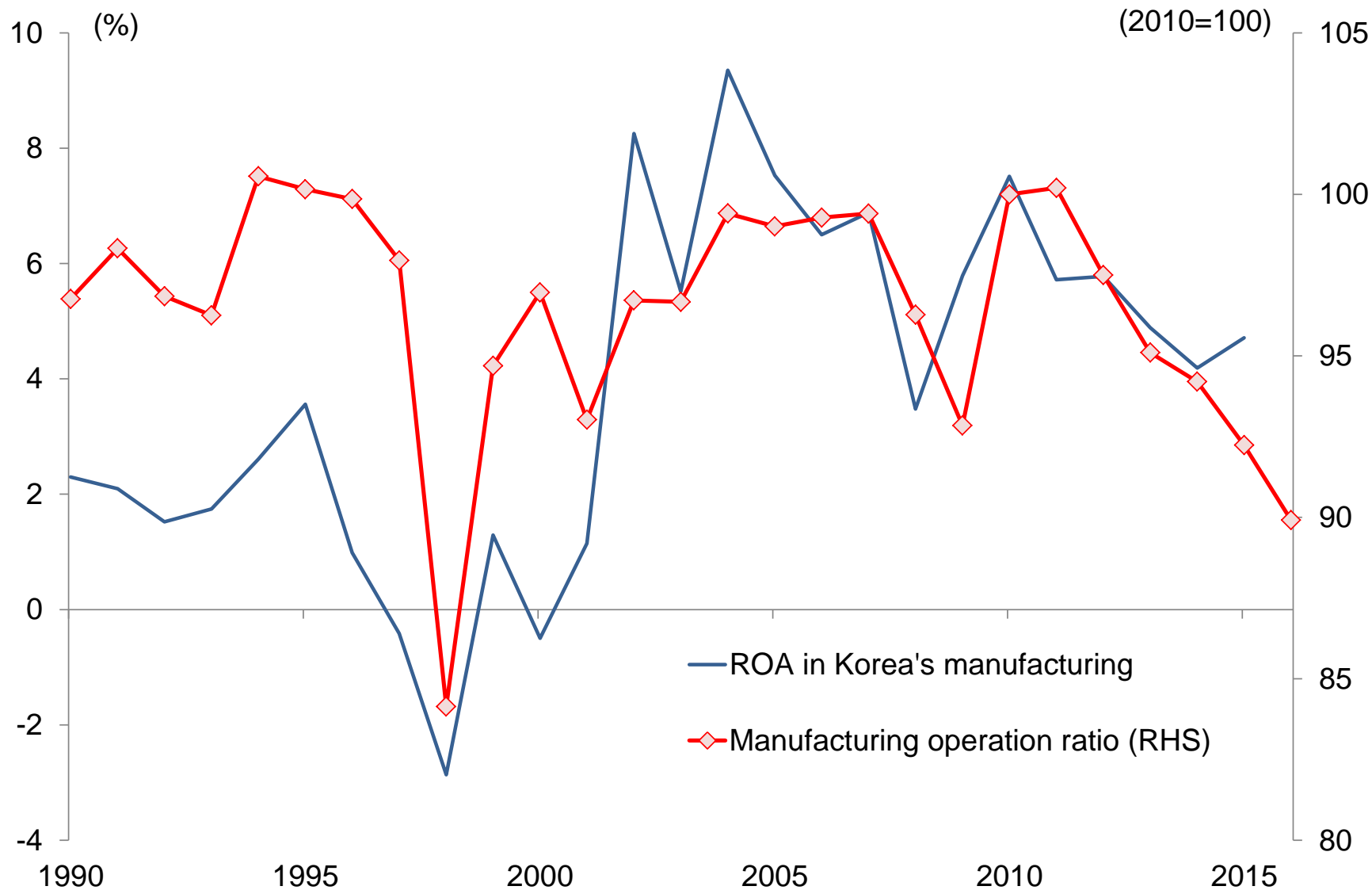
Real GDP growth and employment rate in Korea



Source: MUMSS, from BOK data

...which in turn is pushing down ROA in Korea

Manufacturing industry ROA in Korea



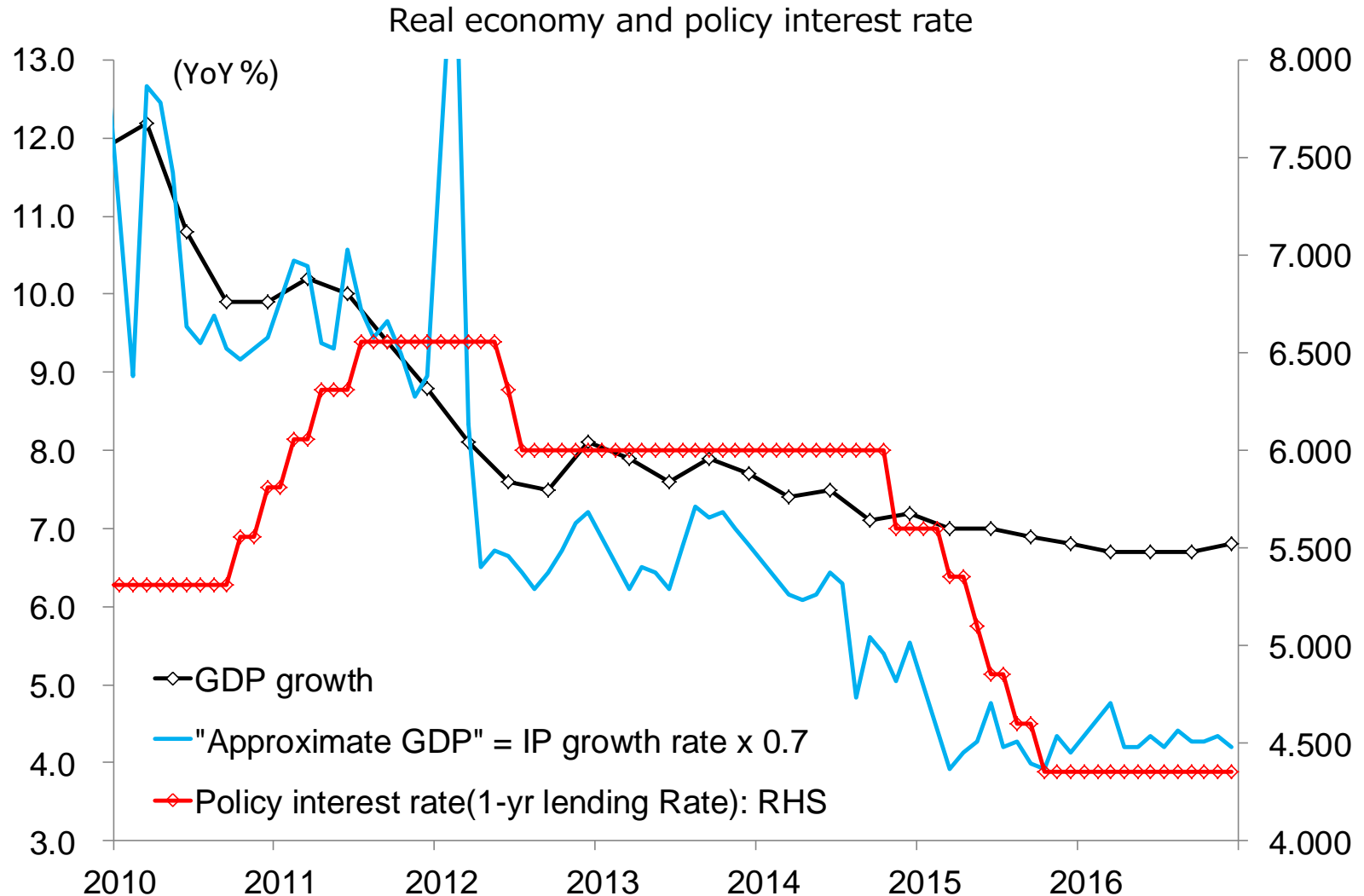
Source: MUMSS, from Statistics Korea data

Japanization, which other countries would follow:

1. Lower potential growth rates (with lower TFP)
2. Deflation concern
3. Investment insensitive to interest rates (lack of growth opportunity)
4. Labor protection, under populists

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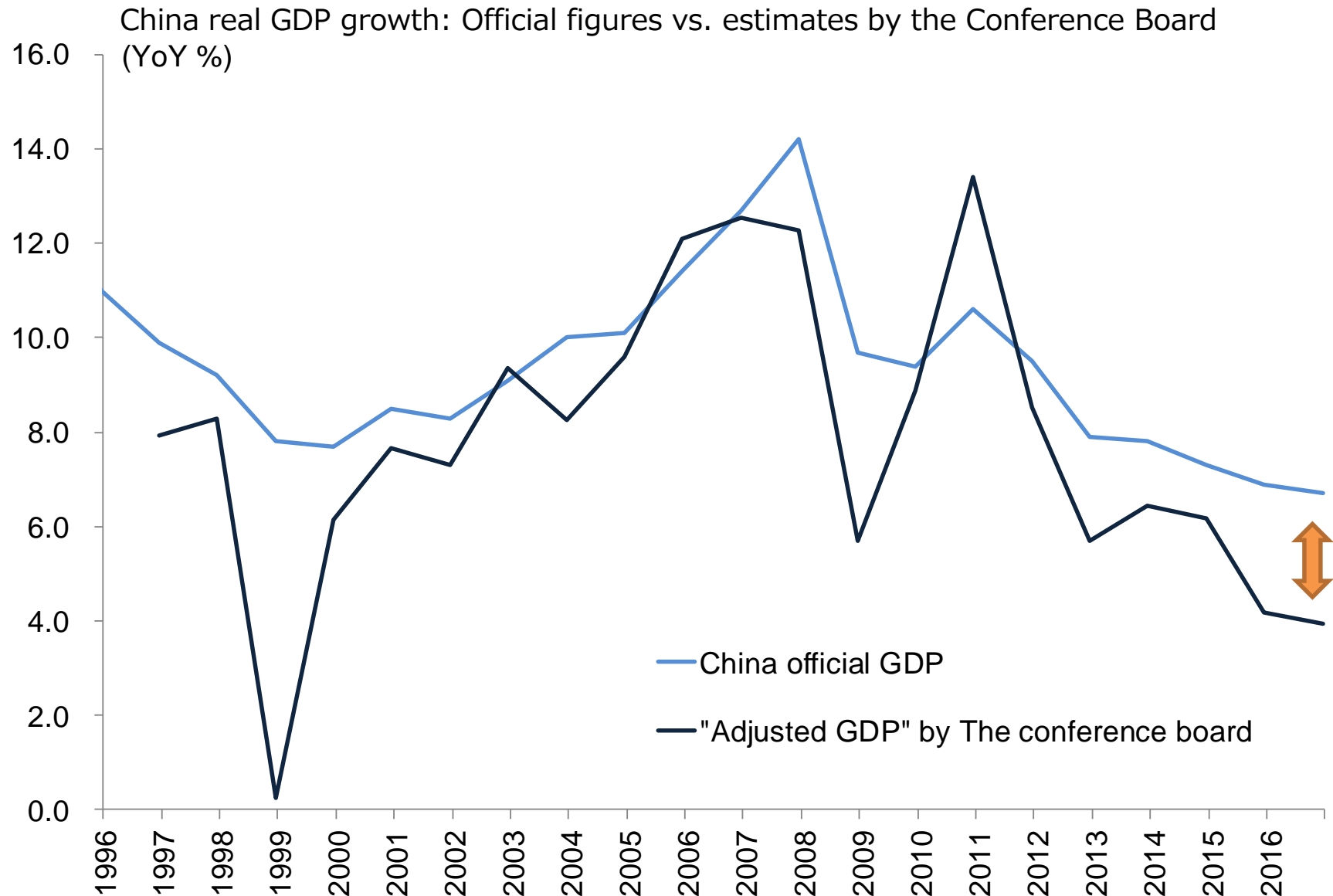
Is China's growth really more than 6%? Why lowered rates?



Source: MUMSS, from National Bureau of Statistics of China data

The Chinese Academy of Social Sciences was established in 1977 as the premier academic organization for research in philosophy and social sciences under the direct control of the State Council of the People's Republic of China. According to Wang Songqi, Doctoral Supervisor at the Academy, the "fabrication ratio" of GDP figures is around 20-30%, so that multiplying the IP index by a coefficient of 0.7 yields a figure that is believed to be close to the actual GDP growth rate.

Is China's growth really more than 6%?

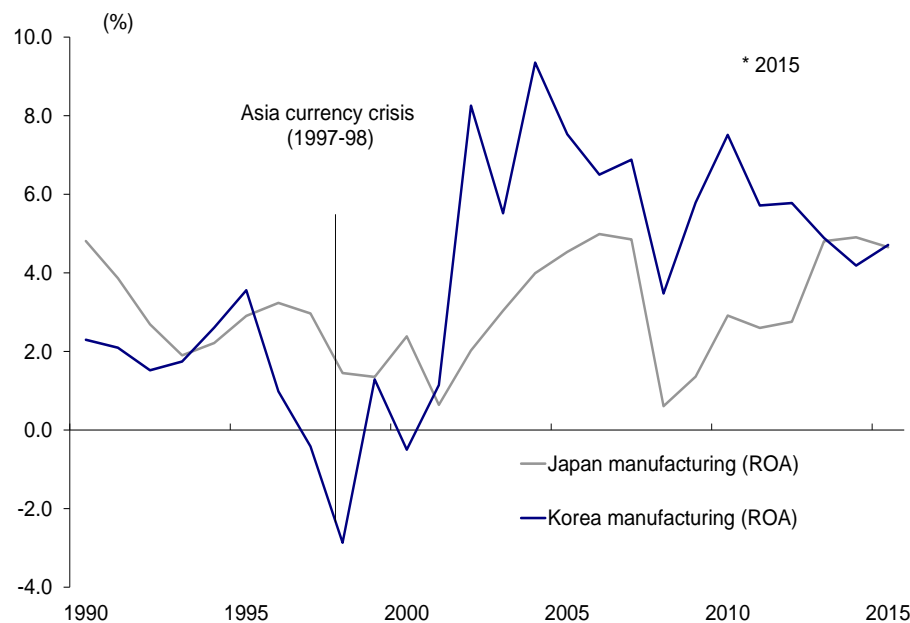


Source: MUMSS, from National Bureau of Statistics of China, The Conference Board data

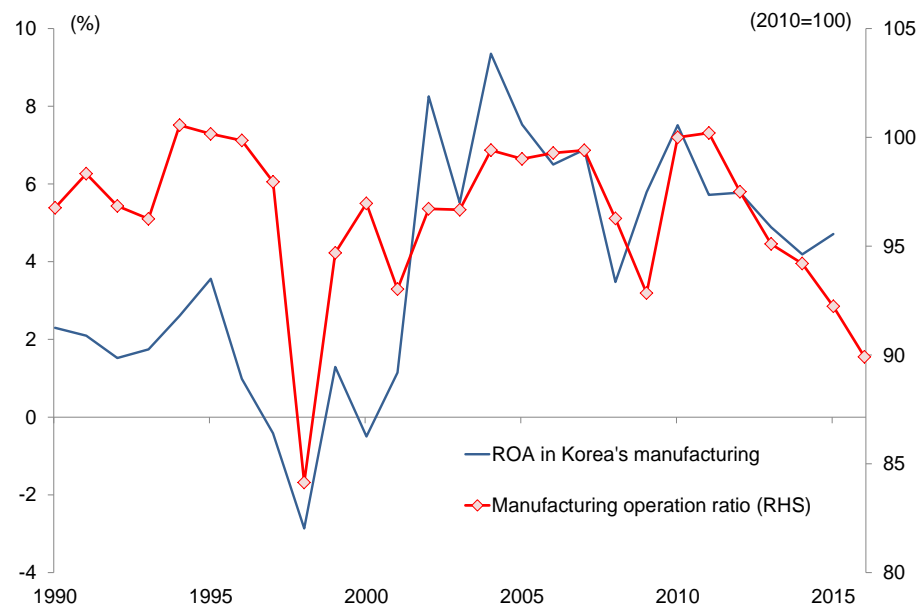
Thank you very much.



Manufacturing industry ROA in Japan and Korea



Source: MUMSS, from BOK and Japan MOF data



Source: MUMSS, from Statistics Korea data

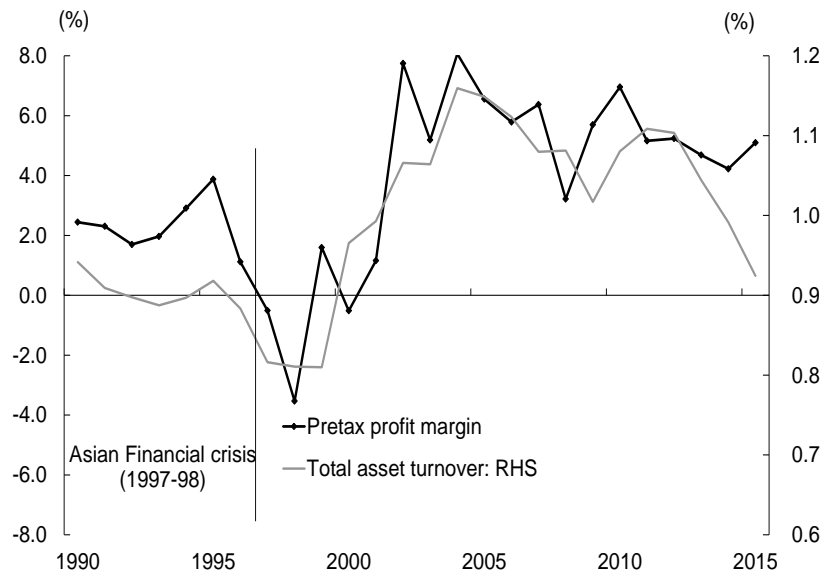
- After going through a major correction following the Asian currency crisis, the ROA of Korean companies exceeded the ROA (pre-tax; the same applies below) of Japanese companies for over ten years. When we compare the figures for 2015, however, we find that while the ROA of the manufacturing industry was 4.71% in Korea, it was 4.65% in Japan. Since Korea's ROA has thus fallen from 5.78% in 2012, but Japan's has improved substantially from 2.76% the same year, the ROAs of the two countries have been running at similar levels since 2013.
- The important thing is the outlook. The latest business analysis data available from the BOK are for 2105, but manufacturing operating rates, which are a leading indicator for manufacturing ROA, have fallen sharply from 91.6 in December 2015 to 88.7% in September 2016. Based on current manufacturing operating rates, we think this implies that ROA will decline going forward. In light of the economic and political circumstances mentioned above, we think any policy support is unlikely, and forecast that ROA will likely continue to head downwards for several years at the very least

Balance sheet analysis: ROA and components (Korea and Japan)

[Korea]		Manufacturing							2015 comments
		1990	1995	2000	2005	2010	2014	2015	
Pretax ROA	%	2.30	3.56	-0.50	7.53	7.51	4.19	4.71	
Total asset turnover	times	0.94	0.92	0.97	1.15	1.08	0.99	0.92	←TAT declines
Cash turnover		14.92	13.84	16.51	11.48	20.38	21.84	17.80	
Accounts receivable turnover		9.70	8.20	6.91	7.31	6.63	6.31	6.14	
Inventory turnover		6.43	6.93	9.69	10.56	10.22	10.13	10.26	←Inventory levels remain high
Investment and loan turnover		15.88	12.54	5.92	6.96	6.31	5.68	5.10	
Tangible fixed asset turnover		2.29	2.23	2.14	2.90	2.96	2.75	2.57	
Intangible fixed asset turnover		392.49	337.24	40.55	73.45	61.36	45.08	40.05	←Intangible fixed assets and sales ratios lower than Japan's
Pretax profit margin	%	2.44	3.88	-0.52	6.55	6.96	4.22	5.10	←Despite rising profit margins***
Personnel cost ratio		10.41	10.50	9.66	9.89	8.53	9.91	10.84	←Personnel costs continue to rise
Depreciation-to-sales ratio		3.99	4.13	4.68	3.91	3.19	3.57	3.92	
Interest and discount expense ratio		5.12	5.57	4.70	1.16	1.20	1.02	0.96	←Impact of easing through rate cuts limited?
Fixed cost		19.52	20.20	19.04	14.96	12.92	14.51	15.72	←Higher fixed costs boost overall costs
Variable cost ratio		78.04	75.92	81.47	78.48	80.12	81.27	79.18	
Return on equity (ROE)	%	5.16	10.06	-5.92	12.15	12.85	6.18	6.86	
[Japan]		Manufacturing							2015 comments
		1990	1995	2000	2005	2010	2014	2015	
Pretax ROA	%	4.81	2.91	2.39	4.53	2.91	4.91	4.65	
Total asset turnover	times	1.16	1.05	1.01	1.04	0.96	0.92	0.90	←TAT also declines
Cash turnover		7.93	9.03	9.05	10.87	8.66	8.55	7.68	
Accounts receivable turnover		4.71	4.61	4.68	4.96	5.37	5.06	5.17	
Inventory turnover		9.34	9.32	10.10	11.19	10.27	9.68	9.65	←Inventory ratio falls
Investment and loan turnover		9.41	7.57	5.25	4.50	4.04	3.46	3.48	
Tangible fixed asset turnover		4.17	3.36	3.39	3.83	3.65	3.99	3.86	
Intangible fixed asset turnover		0.00	0.00	0.00	106.80	96.96	88.13	86.32	
Pretax profit margin	%	4.16	2.77	2.37	4.37	3.03	5.33	5.16	←Profit margins lose momentum
Personnel cost ratio		13.50	15.18	14.46	11.93	12.88	12.28	12.56	←Personnel costs also rising
Depreciation-to-sales ratio		3.04	3.27	3.30	2.85	3.50	2.88	2.90	
Interest and discount expense ratio		2.07	1.30	0.69	0.65	0.46	0.36	0.35	←Impact of easing through rate cuts already limited?
Fixed cost		18.62	19.75	18.46	15.44	16.84	15.51	15.81	
Variable cost ratio		77.23	77.47	79.17	80.19	80.13	79.16	79.03	
Return on equity (ROE)	%	7.89	4.22	3.16	6.34	3.93	7.74	7.12	

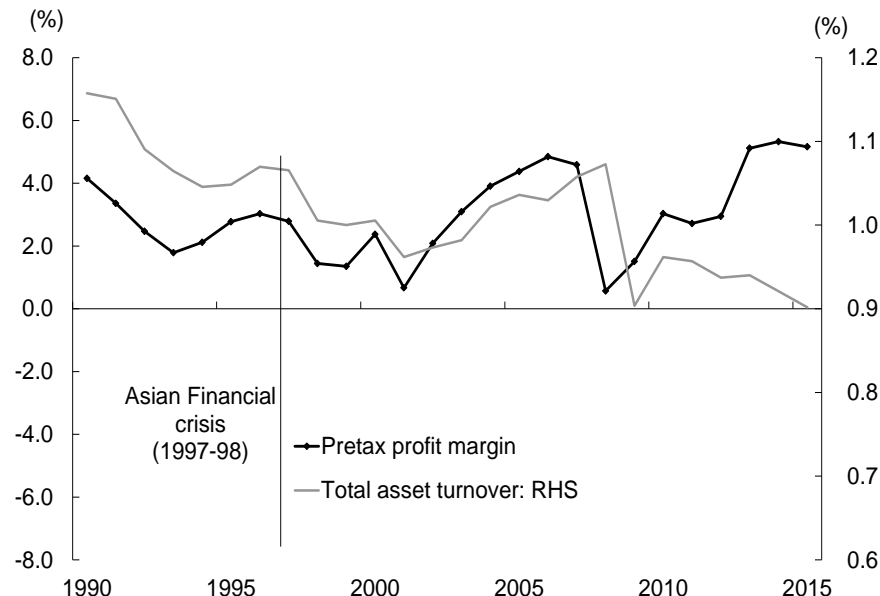
Source: MUMSS, from BOK and Japan MOF data

ROA breakdown for Korean manufacturing industry = Total asset turnover divided by profit margin



Source: MUMSS, from Statistics Korea data

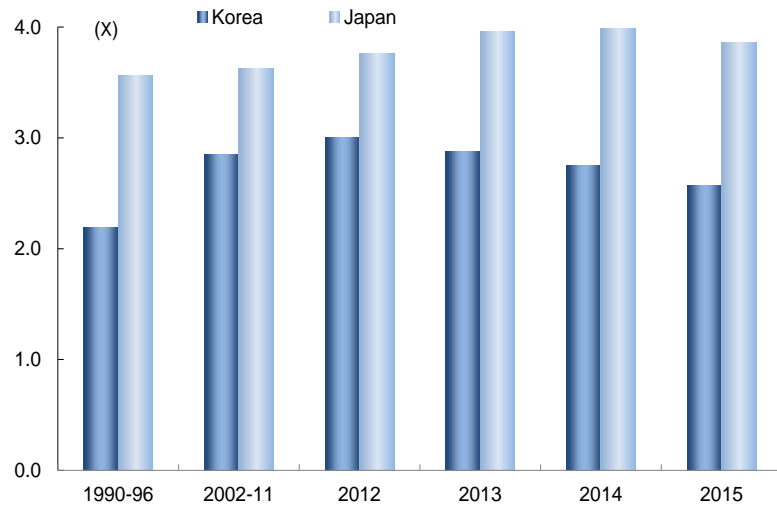
ROA breakdown for Japanese manufacturing industry Total asset turnover divided by profit margin



Source: MUMSS, from Japan MOF "Financial Statement Statistics of Corporations by Industry" data

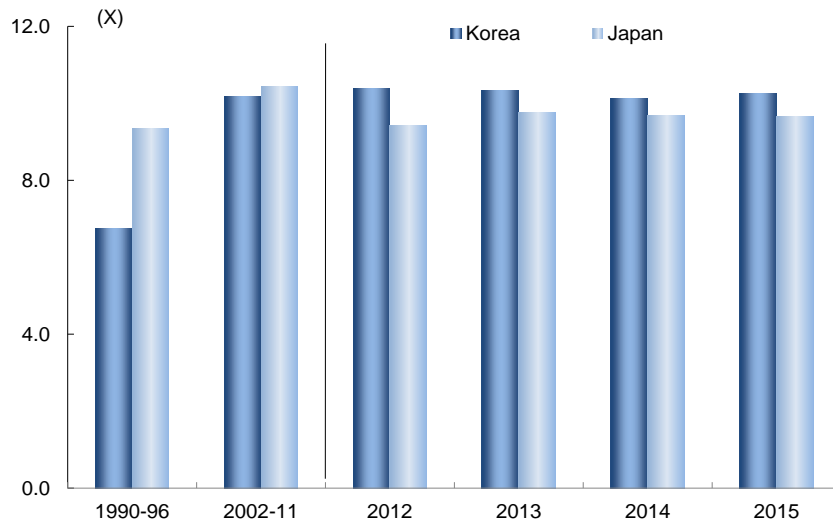
- The following section breaks down the ROA of Korean companies into TAT (total asset turnover; sales / total assets) and ROS (return on sales; pre-tax profits / sales) in an attempt to ascertain why ROA has fallen since the beginning of the 2010s. To cut a long story short, (1) capital efficiency (TAT) fell sharply while (2) there were no signs of an improvement in margins (ROS) as a result of substantial increases in personnel costs. We conclude that this was the reason for the decline in Korean corporate ROA. Meanwhile, despite the fact that TAT has not improved in Japan, margins have improved under the impact of exchange rates.

Tangible fixed asset turnover in Korea and Japan

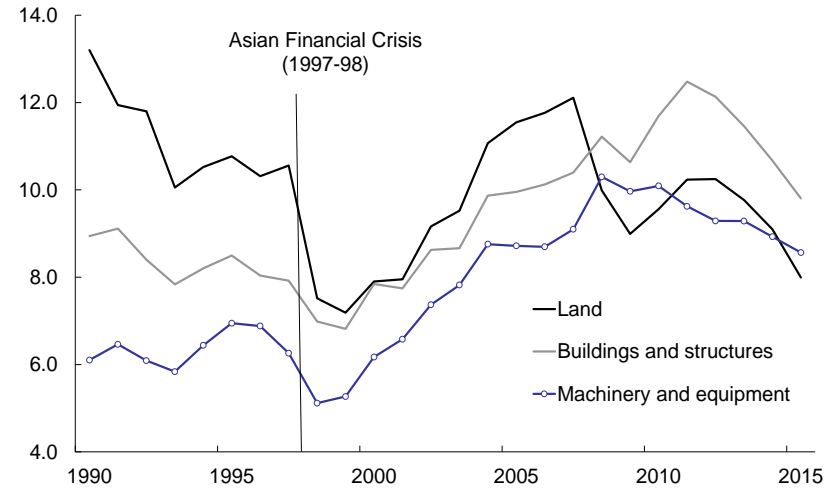


Source: MUMSS, from BOK and MOF data

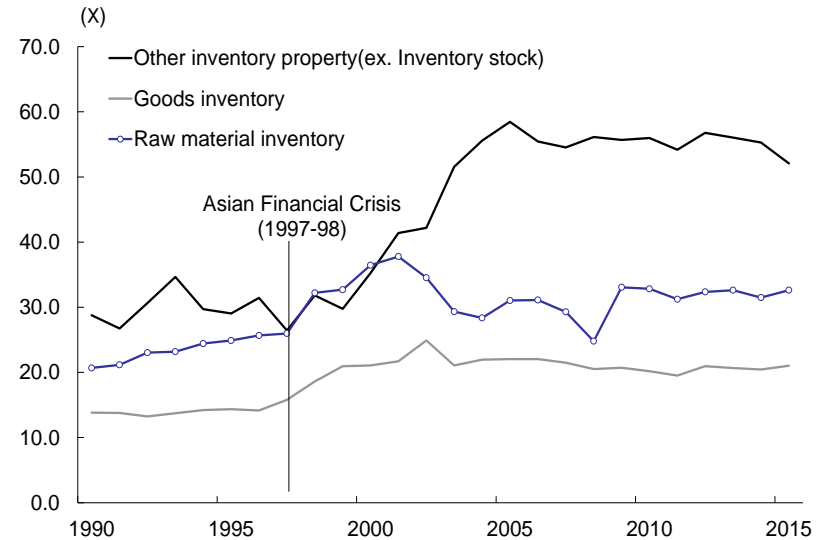
Inventory turnover in Korea and Japan



Source: MUMSS, from BOK and MOF data

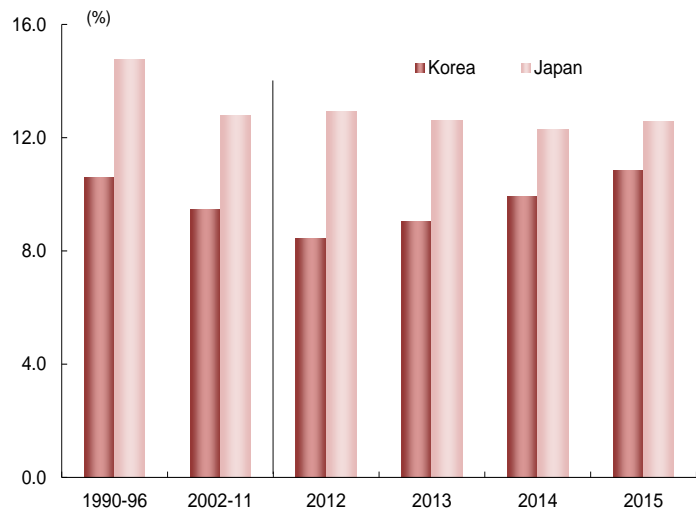


Source: MUMSS, from BOK data

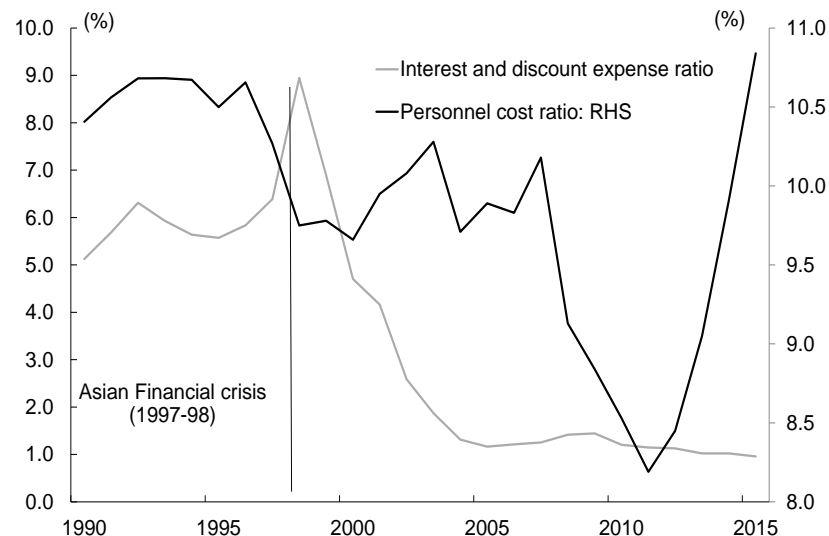


Source: MUMSS, from BOK data

Labor costs as a percentage of sales in Japan and Korea

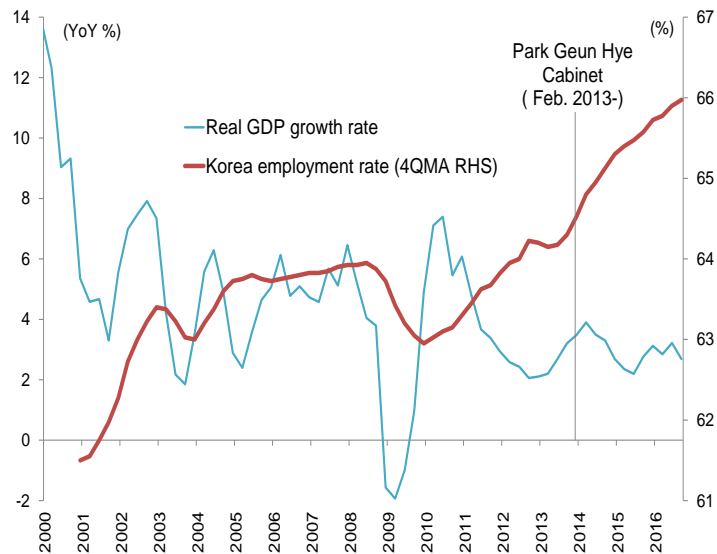


Source: MUMSS, from BOK and MOF data



Source: MUMSS, from BOK data

Real GDP growth and employment rate in Korea



Source: MUMSS, from BOK data

- Turning now to margins, the pretax profit margins of Korean companies have been falling steadily. We believe one reason for this is the recent increase in personnel costs. Much of this is due to the employment safeguards promoted under the Park regime in our view.
- Although there have been no signs of acceleration in the real GDP growth since the inauguration of the Park administration in February 2013, the employment rate has continued to rise. This is the result of the "Three-Year Economic Innovation Plan" drawn up in February 2014, which had three objectives: (1) raise the employment rate (percentage of employed persons as a share of the population aged 15 and over) to 70%; (2) lift the potential growth rate to 4%; and (3) aspire to a national income of USD40,000 (per capita national income forecast to reach USD34,000 by 2017). In order to achieve the target employment rate the government has made it more difficult to fire employees. This has led to an increase in personnel costs, which has led to higher fixed costs

Financial ratio analysis by sector [manufacturing] Korea vs. Japan

Korean ROA is higher than Japan's

[Sector]	
Pretax ROA	%
Total asset turnover	times
Cash turnover	
Accounts receivable turnover	
Inventory turnover	
Investment and loan turnover	
Tangible fixed asset turnover	
Intangible fixed asset turnover	
Pretax profit margin	%
Personnel cost ratio	
Depreciation-to-sales ratio	
Interest and discount expense ratio	
Variable cost ratio	
Return on equity (ROE)	%
Corporation tax rate	%

Manufacturing						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
4.89	4.19	4.71	4.81	4.91	4.65	
1.04	0.99	0.92	0.94	0.92	0.90	
22.12	21.84	17.80	8.98	8.55	7.68	
6.68	6.31	6.14	5.16	5.06	5.17	
10.32	10.13	10.26	9.76	9.68	9.65	
6.10	5.68	5.10	3.62	3.46	3.48	
2.88	2.75	2.57	3.96	3.99	3.86	
49.98	45.08	40.05	94.08	88.13	86.32	
4.68	4.22	5.10	5.12	5.33	5.16	
9.05	9.91	10.84	12.61	12.28	12.56	
3.44	3.57	3.92	2.85	2.88	2.90	
1.02	1.02	0.96	0.41	0.36	0.35	
81.80	81.27	79.18	79.01	79.16	79.03	
6.95	6.18	6.86	7.40	7.74	7.12	
26.3	22.0	21.6	30.5	28.5	29.1	

Info and communications electronics equipment						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
8.64	6.59	6.01	3.02	5.10	3.45	
1.03	0.91	0.87	0.93	0.92	0.89	
30.30	27.75	21.97	9.50	8.00	6.94	
7.68	6.27	6.29	5.00	4.87	5.22	
17.54	16.39	15.28	12.29	12.97	10.85	
5.01	4.15	4.10	2.81	2.97	2.81	
3.13	2.84	2.78	5.57	5.27	5.05	
41.10	35.29	31.63	55.37	55.95	60.10	
8.35	7.27	6.90	3.24	5.52	3.89	
7.82	9.33	9.74	14.04	13.43	13.30	
6.39	7.23	7.65	3.42	3.57	3.28	
0.68	0.70	0.64	0.60	0.60	0.65	
76.75	75.47	75.07	78.69	76.87	78.89	
10.15	8.09	7.37	5.20	11.73	5.41	
25.0	19.6	17.9	32.0	22.8	42.3	

Chemicals						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
5.04	4.37	6.57	6.56	6.01	6.29	
1.16	1.09	0.95	0.76	0.75	0.73	
19.08	20.36	14.40	8.01	8.29	6.25	
7.63	7.42	7.22	4.09	4.14	4.06	
10.26	9.73	9.90	7.01	6.74	6.56	
7.12	6.39	4.82	2.79	2.57	2.68	
2.77	2.59	2.35	3.65	3.73	3.58	
62.03	60.51	48.90	55.20	59.10	54.05	
4.33	4.01	6.90	8.63	7.97	8.66	
5.80	6.39	7.78	11.43	11.09	11.07	
3.00	3.24	3.63	3.31	3.22	3.34	
0.81	0.86	0.92	0.38	0.30	0.29	
86.06	85.50	80.76	76.26	77.41	76.64	
7.26	6.00	8.67	8.16	7.32	8.02	
23.4	22.9	23.6	32.3	33.2	29.8	

Japan's ROA remains higher than Korea's

[Sector]	
Pretax ROA	%
Total asset turnover	times
Cash turnover	
Accounts receivable turnover	
Inventory turnover	
Investment and loan turnover	
Tangible fixed asset turnover	
Intangible fixed asset turnover	
Pretax profit margin	%
Personnel cost ratio	
Depreciation-to-sales ratio	
Interest and discount expense ratio	
Variable cost ratio	
Return on equity (ROE)	%
Corporation tax rate	%

Precision equipment						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
6.42	4.49	5.44	6.84	6.03	6.81	
0.90	0.83	0.82	0.85	0.81	0.84	
8.83	8.37	7.93	6.84	6.71	6.30	
4.62	4.23	4.11	4.16	3.63	4.49	
7.64	7.00	7.17	7.89	7.54	7.85	
11.04	9.64	9.21	3.29	3.18	3.19	
3.04	2.81	2.81	4.72	4.50	4.18	
18.16	16.76	17.13	55.70	55.11	50.84	
7.13	5.41	6.62	8.05	7.42	8.13	
17.06	18.19	18.87	14.85	14.57	13.92	
3.06	3.35	3.27	3.06	3.37	2.80	
1.38	1.44	1.29	0.33	0.32	0.40	
71.37	71.61	69.95	73.71	74.32	74.75	
10.52	6.98	8.41	8.78	8.08	10.55	
14.1	18.6	18.0	31.3	31.3	19.3	

Automobile						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
8.46	7.33	6.95	8.57	8.60	7.87	
1.09	1.05	1.02	1.04	0.96	1.00	
24.19	24.13	25.63	12.44	12.09	10.20	
7.47	7.22	6.84	7.18	6.77	6.99	
16.41	15.90	16.04	23.29	20.70	21.88	
4.74	4.83	4.72	2.77	2.45	2.85	
3.48	3.32	2.92	5.52	5.46	5.47	
39.98	34.75	32.13	207.34	179.68	167.43	
7.73	6.96	6.82	8.25	8.92	7.83	
10.99	11.45	11.44	11.04	11.29	10.94	
2.89	2.71	3.13	2.65	2.62	2.78	
0.67	0.65	0.61	0.19	0.17	0.13	
77.72	78.24	78.00	77.87	77.00	78.33	
12.28	10.83	9.94	12.43	12.35	11.18	
21.1	18.3	21.1	23.9	21.5	22.0	

Other transportation equipment						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
-3.90	-2.31	-7.30	4.71	3.38	3.17	
0.74	0.74	0.75	0.80	0.83	0.83	
23.77	20.84	14.42	4.52	4.83	5.35	
3.11	2.94	3.36	4.46	4.36	4.56	
11.47	9.08	8.99	5.18	5.23	4.57	
4.32	5.01	5.80	5.43	5.68	5.98	
2.38	2.41	2.36	3.66	3.63	3.54	
69.26	56.46	61.34	172.18	185.91	183.69	
-5.24	-3.13	-9.74	5.91	4.07	3.84	
11.82	12.87	13.77	14.71	14.60	13.61	
1.98	2.03	2.06	0.12	2.55	2.73	
1.57	1.58	1.50	0.36	0.32	0.32	
89.87	86.65	92.41	78.91	78.46	79.50	
-13.73	-6.50	-24.09	7.77	5.51	4.74	
#N/A	20.1	19.1	35.3	37.9	44.0	

[Sector]	
Pretax ROA	%
Total asset turnover	times
Cash turnover	
Accounts receivable turnover	
Inventory turnover	
Investment and loan turnover	
Tangible fixed asset turnover	
Intangible fixed asset turnover	
Pretax profit margin	%
Personnel cost ratio	
Depreciation-to-sales ratio	
Interest and discount expense ratio	
Variable cost ratio	
Return on equity (ROE)	%
Corporation tax rate	%

General Machinery						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
0.86	3.24	3.61	4.39	4.74	4.25	
0.95	0.95	0.94	0.79	0.79	0.76	
13.60	12.85	11.85	6.37	5.92	5.85	
4.87	4.65	4.77	3.70	3.75	3.73	
8.08	8.00	8.28	6.22	6.55	5.99	
11.52	12.04	11.19	3.59	3.44	3.54	
2.69	2.61	2.57	3.67	3.77	3.54	
53.79	54.14	50.68	102.83	93.40	81.46	
0.90	3.41	3.85	5.57	6.04	5.58	
14.60	15.28	16.10	15.93	16.01	17.30	
2.38	2.42	2.34	2.94	2.83	2.91	
1.55	1.51	1.33	0.35	0.45	0.48	
80.57	77.37	76.38	75.20	74.67	73.74	
0.13	5.51	5.82	6.51	7.23	6.77	
93.7	26.4	27.7	32.4	30.8	27.8	

Special machines						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
1.87	2.38	2.49	5.10	4.89	5.45	
0.85	0.83	0.83	0.76	0.80	0.79	
14.97	15.79	13.18	4.90	4.65	4.76	
4.57	4.33	4.63	3.33	3.47	3.50	
7.69	7.54	7.53	7.19	7.13	7.78	
6.41	6.39	6.94	4.01	4.42	3.85	
2.39	2.29	2.20	3.53	3.48	3.63	
35.06	36.53	37.20	122.17	117.13	106.81	
2.20	2.89	2.99	6.74	6.12	6.91	
15.54	16.30	17.29	18.92	18.26	17.95	
3.07	3.16	3.27	2.18	2.76	2.43	
2.00	1.90	1.68	0.72	0.49	0.47	
77.19	75.75	74.78	71.45	72.36	72.25	
3.01	4.44	3.92	7.61	8.21	8.28	
32.6	21.7	31.2	32.1	28.1	27.2	

Iron and steel						
Korea			Japan			
2013	2014	2015	2013	2014	2015	
2.55	1.45	2.33	3.72	4.22	2.54	
0.71	0.74	0.67	0.85	0.87	0.84	
21.86	21.28	19.63	15.61	17.17	13.52	
6.62	6.81	6.86	6.58	6.77	6.50	
5.90	6.09	6.56	5.76	5.81	5.80	
3.62	3.78	3.29	3.37	3.32	3.42	
1.49	1.57	1.38	2.55	2.71	2.51	
46.12	48					

Financial ratio analysis by sector [non-manufacturing] Korea vs. Japan

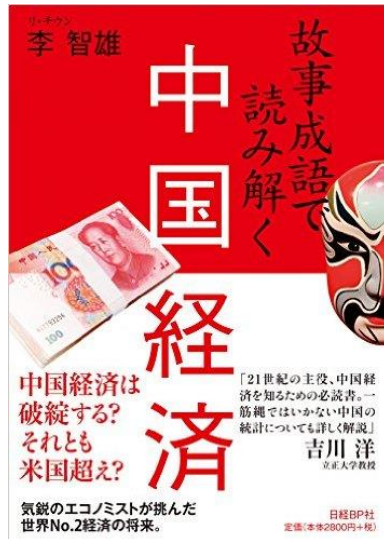
Korean ROA is higher than Japan's

[Sector]	Wholesale						Services						Leisure					
	Korea			Japan			Korea			Japan			Korea			Japan		
	2013	2014	2015	2013	2014	2015	2014	2015	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Pretax ROA	3.24	4.85	4.58	3.33	3.08	2.81	8.64	6.59	6.01	4.04	4.00	4.62	5.04	4.37	6.57	2.77	2.32	1.97
Total asset turnover	2.00	1.94	1.87	1.89	1.80	1.75	1.03	0.91	0.87	0.78	0.83	0.87	1.16	1.09	0.95	0.84	0.82	0.81
Cash turnover	24.20	23.36	21.43	13.49	12.24	10.86	30.30	27.75	21.97	4.17	4.00	4.80	19.08	20.36	14.40	7.23	8.19	6.94
Accounts receivable turnover	7.54	7.23	7.11	6.03	5.69	6.06	7.68	6.27	6.29	7.27	7.38	7.39	7.63	7.42	7.22	70.54	42.38	42.37
Inventory turnover	14.01	13.35	12.81	17.94	17.65	17.63	17.54	16.39	15.28	33.09	48.14	42.22	10.26	9.73	9.90	59.67	66.58	66.08
Investment and loan turnover	14.63	15.00	13.76	10.07	9.60	8.86	5.01	4.15	4.10	2.41	2.86	2.59	7.12	6.39	4.82	6.31	9.14	7.58
Tangible fixed asset turnover	10.66	10.54	10.50	12.62	12.18	11.59	3.13	2.84	2.78	3.53	3.55	4.18	2.77	2.59	2.35	1.45	1.33	1.36
Intangible fixed asset turnover	128.53	128.39	119.91	263.27	263.39	234.60	41.10	35.29	31.63	75.32	82.75	78.47	62.03	60.51	48.90	13.51	9.78	50.83
Pretax profit margin	1.62	2.49	2.45	1.76	1.71	1.61	8.35	7.27	6.90	5.16	4.85	5.33	4.33	4.01	6.90	3.28	2.84	2.43
Personnel cost ratio	5.40	5.85	6.24	4.52	4.55	4.85	7.82	9.33	9.74	30.54	29.20	26.53	5.80	6.39	7.78	8.83	9.65	9.76
Depreciation-to-sales ratio	0.60	0.62	0.65	0.46	0.51	0.69	6.39	7.23	7.65	2.71	2.49	2.28	3.00	3.24	3.63	5.60	4.27	4.40
Interest and discount expense ratio	0.62	0.57	0.52	0.25	0.22	0.19	0.68	0.70	0.64	0.38	0.29	0.38	0.81	0.86	0.92	9.16	0.62	0.68
Variable cost ratio	91.76	90.46	90.14	93.01	93.01	92.66	76.75	75.47	75.07	61.21	63.17	65.47	86.06	85.50	80.76	73.13	82.62	82.73
Return on equity (ROE)	6.63	11.09	9.83	7.06	6.49	4.92	10.15	8.09	7.37	6.19	5.92	6.49	7.26	6.00	8.67	7.84	5.09	4.31
Corporation tax rate	35.0	24.7	25.3	37.2	33.7	37.8	25.0	19.6	17.9	30.6	30.5	30.8	23.4	22.9	23.6	35.0	39.8	35.2

Japan's ROA remains higher than Korea's

[Sector]	Nonmanufacturing						Retail						Construction					
	Korea			Japan			Korea			Japan			Korea			Japan		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Pretax ROA	0.89	1.97	2.93	3.28	3.43	3.48	4.55	3.90	2.94	4.32	3.12	3.58	-0.17	1.70	2.14	3.39	4.28	4.60
Total asset turnover	0.79	0.79	0.76	0.92	0.92	0.90	1.22	1.22	1.15	1.76	1.56	1.54	1.00	0.99	1.01	1.28	1.29	1.24
Cash turnover	15.32	15.16	12.93	7.77	7.53	6.98	26.05	21.46	20.23	12.99	12.61	11.16	11.40	11.01	9.10	6.24	5.82	5.37
Accounts receivable turnover	7.22	7.38	7.65	7.11	6.90	6.99	19.86	19.83	20.62	15.04	11.98	11.60	4.64	5.04	5.24	5.40	5.66	5.44
Inventory turnover	5.48	5.73	5.61	15.35	15.09	15.38	11.00	10.82	10.33	13.32	11.31	12.08	7.37	6.27	7.20	10.59	11.14	11.34
Investment and loan turnover	4.61	4.65	4.37	3.71	3.81	3.63	7.35	7.41	5.57	11.87	11.84	11.13	5.52	5.56	7.02	11.11	10.04	9.67
Tangible fixed asset turnover	2.46	2.44	2.34	2.85	2.95	2.92	2.98	3.08	3.00	5.43	4.71	4.72	8.18	8.53	7.37	6.04	6.30	6.08
Intangible fixed asset turnover	14.34	14.57	14.20	64.46	62.59	70.18	34.62	37.11	40.95	129.71	72.61	113.57	107.69	118.73	73.76	251.12	246.83	312.00
Pretax profit margin	1.13	2.48	3.84	3.58	3.72	3.87	3.72	3.19	2.56	2.45	2.00	2.32	-0.17	1.72	2.10	2.64	3.32	3.72
Personnel cost ratio	12.23	12.59	13.32	11.47	11.57	11.90	4.86	4.59	4.58	9.87	10.54	10.44	17.30	17.36	18.19	11.89	11.92	12.37
Depreciation-to-sales ratio	2.53	2.50	2.79	2.34	2.37	2.57	1.35	1.19	1.10	1.34	1.44	1.52	0.66	0.65	0.80	1.39	1.18	1.31
Interest and discount expense ratio	1.88	1.74	1.65	0.76	0.51	0.51	0.84	0.79	0.74	0.37	0.23	0.28	1.29	1.18	1.05	0.32	0.32	0.30
Variable cost ratio	82.23	80.69	78.40	81.84	81.83	81.14	89.22	90.23	91.03	85.97	85.79	85.44	80.92	79.10	77.86	83.76	83.26	82.29
Return on equity (ROE)	1.19	3.80	5.75	6.12	6.29	6.32	6.88	5.70	3.72	7.84	5.00	5.97	-1.21	2.53	3.64	6.84	8.18	8.20
Corporation tax rate	54.9	32.4	28.7	35.2	33.2	31.9	28.0	30.4	38.1	40.1	43.9	39.6	#N/A	37.3	30.4	36.7	33.9	34.7

Source: MUMSS, from BOK and Japan MOF data



Identifying idiosyncratic macroeconomic and market analysis issues

History tends to repeat itself. Countries follow paths only slightly different from those that others have already taken. I believe there is much to be learned from history, especially the path that Japan's economy took after WWII. I like to focus on micro-level details from man-in-the-street surveys both inside and outside Japan when forming my outlook for the macroeconomy. As Japan will likely gradually lose its purchasing power relative to other developed countries and its ability to influence the global economy in the years ahead, I plan to focus on its ties with other Asian economies and how these economies might in turn affect Japan. As the use of the "yen" symbol, which is also used for the Chinese yuan, evolves with the relative importance of the currency in the global economy, I anticipate a major shift in in the meaning of the Group of Three (G3).

Career

Joined MUMSS in 2014.

Before joining MUMSS in 2014, worked at the Tokyo and Seoul offices of Goldman Sachs as a Korean equities strategist and economist covering the Japanese and Korean economies. Served as a guest associate professor in the Graduate School of Arts and Sciences at University of Tokyo in 2011, a member of a Ministry of Economy Trade and Industry research committee in Oct-2011-Mar 2012, and a lecturer at International University of Japan in 2013-present. Taught economics, business administration, and game theory to Korea Military Academy cadets in 2003-06.



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